

# SCHOOL AND COLLEGE PLACEMENT

Journal of the Association of School and College Placement

CLARENCE E. CLEWELL, *Editor*

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October 1941

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GORDON A. HARDWICK  
PRESIDENT  
*Association of School and College Placement*



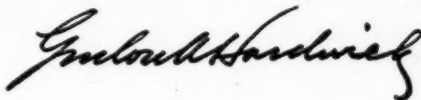
## FOREWORD

### YOUTH AND THE FUTURE

In assuming the presidency of this Association, which is now national in scope, I am aware of the fact that it is an outgrowth of a great emergency program launched in 1939 by Governor Arthur H. James of the State of Pennsylvania, to alleviate the disastrous consequences of unemployment. An underlying purpose has been to improve the conditions of Youth in every walk of life. The Association has taken a vital interest in the welfare of students and graduates of our Public Schools, and of our Colleges and Universities, as well as of all other institutions. A new keynote has been struck in the philosophy of the attitude towards Youth, namely by renewing the emphasis upon self-reliance, and by trying to instill in the mind of Youth everywhere, on the basis of new fields of opportunity, a spirit of hope in relation to the future, as well as towards life's ideals. I bespeak the cordial cooperation of all Schools, Colleges and Business and Industrial Firms throughout the nation in our earnest effort to study, and to help in solving, the many important problems which have been assigned to this Association by the original Committee on Educational Cooperation, of which President Thomas S. Gates of the University of Pennsylvania was Chairman.

I am much pleased to report that a nation-wide response has resulted from the challenge of the original Committee on Educational Cooperation, first sounded during the winter months of 1939-1940, and the Association has thus been extended, in one way or another, into nearly every state of the nation. I can confidently indicate that the results of the past year have far exceeded the most optimistic expectations of the original committee, when the proposal for the formation of such an Association was first made in December, 1939. An extensive study has been made into Vocational Guidance facilities at the college level, and also into the extent of Senior Placement of the June, 1940 classes of member institutions. Cooperative procedures have been started whereby member colleges may work together in filling given types of positions, and this single achievement, taken by itself, opens a new channel of institutional cooperation of unlimited possibilities. A wide interchange of information has been promoted among member Schools, Colleges and Firms regarding placement methods and systems of training. Broad interest has been developed in the deeper implications of placement, as affecting the welfare of Youth generally and throughout the entire nation. Far-reaching interest has been expressed by leading educators and industrialists in the objectives and fundamental policies of this organization.

On the basis of the splendid ground-work developed during the formative stages of this Association, I am particularly pleased to state that comprehensive plans are now being formulated to widen its activities along permanent and national lines. The keynote of the entire future program will be the welfare of Youth throughout the nation. It is proposed to work towards this through constant emphasis upon improved training; through the more careful selection of candidates for given fields of work; through the promotion of higher standards for the recruiting of college graduates by firms; through greater emphasis than ever before upon career planning; and through the more careful guidance of Youth in all walks of life. The program represents a veritable crusade along lines of the highest possible ideals, backed by the overwhelming support of educators in both Schools and Colleges, and by leading experts in the fields of Business and Industry. The effective cooperation of all is invited in the earnest effort to attain these far-reaching objectives.



## "THIS SOUTH WIND BLOWING SOFTLY"

ROBERT CLARKSON CLOTHIER

*President of Rutgers University*

EDITOR'S NOTE: We are deeply grateful for the opportunity to reprint this address which was presented to the June Graduating Class of Rutgers University, for we feel that the splendid material contained therein is very much in keeping with the underlying purpose of the Association, namely, to build up in the mind of youth everywhere self-reliance and hope.

**T**HIS baccalaureate service of ours is our own service. We are meeting together for the last time—the members of the graduating class who have lived and worked and played together for four years and we, their friends on the faculty, who have endeavored to help with parts of this program and not to interfere too much with other parts. A spiritual fellowship binds us together, a fellowship which is all the more significant by virtue of the character of the chapel in which we are meeting, for in no other college chapel in the country, which I have seen, has there been symbolized, as here, the wealth of a great tradition. On these walls appear the likenesses of the men who have built Rutgers. Each one has written his own part of her history. Each of us will write his own.

Since time immemorial, it has been the privilege of baccalaureate speakers to lay the burdens of the world on the shoulders of the members of the graduating class. In times like these the jest loses some of its humor. Yet I suppose that before I finish these few remarks I too shall have told you that there is a job to be done. If there isn't a job for you to do, what in the world have you been doing with four years of our time? What in the world have we been doing with four years of yours?

There is a job to be done. It will not be easy. But I hope you will keep your sense of proportion and your sense of humor and that you will enjoy doing it. Just bear that in



ROBERT CLARKSON CLOTHIER

mind as you accompany me—if you do—during the maze which is about to follow.

My text this morning is the story of Paul's shipwreck in the XXVII Chapter of Acts. You all know it well. It is one of the most dramatic stories in all literature. Paul was on his way to Rome to be tried. Everything was going along well. There was nothing to worry about. They were in a comfortable ship passing Crete,

that island of mythological glamour which so recently has been under the baptism of fire.

"And when the south wind blew softly, supposing that they had obtained their purpose, loosing thence, they sailed close by Crete."

Do you recall that phrase? It is rich in symbolism. Here in America, by and large, the south wind has been blowing softly in recent years. We have not made our democracy work too well and hardship, in one form or another, has been the lot of many of our people. But by and large this has been an era of security and plenty. We are the wealthiest nation in the world in natural resources. We have a Yankee flair for inventiveness which has turned these resources into sufficiency and comfort in our daily lives. Science and invention have given us gadgets and conveniences of which our grandfathers could hardly conceive. Physical ease and freedom from hardship have been ours. Few of us, literally or figuratively, have had to walk out to the pump on freez-

ing mornings and thaw it with a kettle of boiling water before we can wash. Few youngsters have to trudge five miles to school and back, as they did a generation ago. The automobile has taught us to forget how to walk. We have become conditioned to this kind of life and there are many who will say that it has led to selfishness and softness of character.

The strikes in vital industries, taking advantage of the national emergency to advance group interests, is an indication of this selfishness. The ready ease with which we are prepared to mortgage the future for present comforts, by installment buying, encouraged by eloquent advertising, seeking to enjoy what we have not yet earned, is a symbol of the loss of a certain self-discipline our forefathers had. Out of every fourteen automobiles bought one is paid for in cash. We would be more than human if, with the south wind blowing gently thus, as it has been blowing all these years, with wealth and comfort and ease ours in a measure greater than that enjoyed by any other people at any time in the history of the world—we would be more than human if we had not lost a certain toughness of moral fibre. This is not just an oratorical question. History leaves us in no doubt as to what happens to a nation which loses its moral fibre.

Then, returning to the story of Paul's shipwreck, in the next verse we read:

"But not long after there arose against it a tempestuous wind, called Euroclydon.

"And when the ship was caught, and could not bear up into the wind, we let her drive."

And a little later,

"And we being exceedingly tossed with a tempest, the next day they lightened ship;

"And the third day we cast out with our

own hands the tackling of the ship."

Just so in these last few years, after sailing along with the south wind blowing gently, we have seen a tempestuous wind arise in human affairs. It has caught the free nations of the world unprepared, just as it has caught our own. These nations of Europe—Finland, Austria, Czechoslovakia, Poland, Denmark, Norway, Holland, Belgium, little Luxembourg, France and now Roumania and Hungary, Bulgaria, Yugoslavia, and last, brave but eternal Greece—these too have felt the impact of this tempestuous wind. All these nations have accepted military or diplomatic defeat. Unprepared as they were for the military might of the aggressor nations, lulled perhaps by the south wind which has blown softly these many years, they were unprepared to meet it and defeat has been their lot. Not only defeat but humiliation and despair.

### There Arose A Tempestuous Wind

These are days in which there is need indeed to lighten the ship of much unnecessary cargo. Bitter has been the experience of our friends in Europe. Cast overboard have been the old narrownesses, the old prides, the old selfishnesses. The men and women of the conquered nations of Europe have learned to do without many things, not merely the physical comforts and necessities of life, but the spiritual luxuries to which they had become accustomed. Similarly there is need for us, before similar disasters strike and in time to prevent them if possible, to cast overboard our material and spiritual luxuries. When human liberty is at stake, the values for which men have striven for a thousand years are in the balance. This is no time to temporize. This is no time to allow our lives to be cluttered with things that don't count.

This great wind called Euroclydon—we

here in America are beginning to feel the first gusts. Before it is too late and the full strength of the storm is upon us, let us lighten ship. Let us throw overboard these habits of ease and complacency and self-seeking. Let us restore thrift and simplicity and integrity to our lives. Let us explore our own consciences and find out if these easy years, this south wind blowing, have in fact weakened our moral fibre. Let us see if courage is still part of our moral equipment.

The British have found their souls—to quote a phrase of Mr. Churchill's—through the incessant death which has fallen these days from English skies. The question is, can we find ours without the tragedy of some similar ordeal to compel us?

In this chapel, on Parents' Day, I read a letter from England. As many of you were not here, then, perhaps I will be forgiven for reading it again.

"I gather from the tone of your letter today that in your opinion these times are about the worst ever.

"I suppose in one sense they are, so far as life, safety and property are concerned. Once upon a time we worried over all sorts of trifles. When we think of some of them now we just have to smile.

"But in general, these times are not the worst ever, old boy. Far from it. Even Londoners, who have endured agonies beyond their worst nightmares, would not say that. There are some respects in which they are the finest ever. Strange, but true!

"Never before have we been so fiercely proud to be British; never before have we had such cause for pride. It may seem fantastic to you, so far away, but there are men and women here who can say, 'If this day had to come, thank God I have lived to see it.'

"You remember, on one of your more recent visits, how we talked of the fatty degeneration of the British body politic? At

that time students had declared that in no circumstances would they fight for King and country. There was a persistent agitation to disarm Britain. At one end of the social scale there were incredibly selfish parasites living in idle luxury. At the other end, here in Lancashire, there were conditions of grim poverty unknown since the era of industrial slavery.

"There was unrest everywhere, but it was a flabby, futile sort of unrest. And the men at Westminster, chosen of the people, did nothing but talk and talk—mostly drivel.

*"That, and not this, was our darkest hour.* You would not today recognize it as the same country. From the highest to the most humble, a surging tide is sweeping away most of the bad old things in a mighty, cleansing hurricane.

"Britain may have been weak and slothful in those years that the locusts have eaten. It is so no longer. The courage of our people is unbelievable.

"God knows we did not seek this deluge of horror. But it has taught us stern and homely qualities we were in danger of losing. In the vileness that is war, we are finding supreme virtues to keep us sane.

"We are learning again the inspiration of great leadership, the nobility of simple people, the grandeur that is found in back streets and humble homes. We are learning that the true wealth of a nation is in the well-being and happiness of its people, and that freedom, like health, is appreciated most when it is being lost."

Perhaps these are *our* darkest hours. In the refusal of many men in public life to face the facts in the world situation; in the willingness of groups of men to strike for fantastic wages in essential war industries while hundreds of thousands of our best youth are willingly and cheerfully going into military service at \$21.00 a month; in the hesitancy of all of us, in greater or less

degree, to strip our lives of the things that don't count; in our forgetfulness of those spiritual values on which our nation was built, and on which it must build its hopes of the future if it is to survive—perhaps in these respects, these are indeed our darkest hours. Perhaps before it is too late we shall discover our own souls, as the English have discovered theirs. Let us pray that we shall!

### Cast Out With Our Own Hands the Tackling of the Ship

I have mentioned strikes in defense industries. We all have deep respect for the purposes and ideals of both management and labor in their efforts to improve the condition of the American workingman. More power to them! But the coming year will make it glaringly clear, I believe, that unless these groups work together now, in this time of national emergency, disaster will follow and those who refuse to so cooperate the

people of this nation will in time indict with breach of faith. It is all too reminiscent of the situation in France when immediately upon the outbreak of war with Germany not a railroad train in France moved for eight days. You know what happened to France.

Many of you read the book, "I Saw England," by Ben Robertson, the veteran newspaperman. He has had a ringside seat at the progressive destruction of physical England. Speaking of the bombing of London, he writes in one paragraph:

"Those were wonderful days in every way—they changed me as an individual. I lost my sense of personal fear because I saw that what happened to me did not matter. We counted as individuals only as we took our place in the procession of history. It was not we who counted, it was what we stood for. And I knew now for what I was standing—I was for freedom. It was as simple as that."



IVY CLAD KIRKPATRICK CHAPEL  
RUTGERS UNIVERSITY



\* \* \* \* I understand Valley Forge and Gettysburg and Dover, and I found it lifted a tremendous weight off your spirit to find yourself willing to give up your life if you have to—I discovered Saint Matthew's meaning about losing a life to find it. I don't see now why I ever again should be afraid."

In another paragraph he writes:

"During those days in London there was faith and there was courage and there was a noble humility I had never known before in any British city. It was as though the people felt themselves in the sight of God. The English would not put a feeling like that into words, the English do not express themselves so emotionally; but just the same there was an atmosphere about us of a church. London had made peace with its inner self; it was composed, everything spiritually was at rest."

He goes on to say that night after night bombs fell but—and I quote again—

"The Britishers' spirit held, their conviction did not budge an iota. I watched them the day St. Paul's was hit. I saw the people standing at the iron railing and silently looking at the hole in the Cathedral ceiling, and I realized then that the people of London had already given up London in their minds as a physical city. I realized then that they meant what they said when they told you it would be better to see London in ruins than to save it as the French had saved Paris. Notre Dame to these Londoners was a dead monument—a dead church in a humiliated city. London was no longer a physical city to its people. It had become a spiritual place, the city of Dr. Johnson, the London of John Wesley, of Shakespeare, of Cardinal Newman's 'Lead Kindly Light.' London lived within them."

I could go on and on but these passages which I have read serve to illustrate what I would say to you this morning. If we are to save the America we have known and loved, we shall do so only through utter forgetfulness of personal advantage, utter dedication of ourselves to the common cause. There will be need for us to abandon materialistic values and to restore spiritual values to their proper place in our lives.

Our first task—our immediate task—is to save America both from external aggression and from internal decay, first by creating the necessary naval and military strength and second by subjecting ourselves, within our borders, to new self-disciplines. When that has been achieved—if in God's good time it is to be achieved—America will have to face more courageously than ever before the responsibility of ensuring a peace based on justice rather than a peace based on spoils or vengeance. We will have to understand that this American cause to which we pledge ourselves is the common cause of all humanity. America will have to help establish a human society whose ultimate objective is not the advantage of one group or one nation but the good of all. There will be many, wearing blinders, who will not be able to think this far. They will call this blue-sky or pure idealism, but believe me it is out of this same blue-sky that any permanent peace is to be built.

We had our chance once. With the help of her allies, America won the last war only to lose the peace which followed. She lost the peace, and helped prepare the way for this new war, by failing to join with the other nations in creating this kind of an international order. Regardless of who was individually responsible, it is true that by her decision to refrain from joining the League of Nations, she deprived that international agency of the moral prestige essential to its effective operation. What nation

would take it seriously with America out of it? When the opportunity comes again—if indeed it does come—let us pray that America will take a more intelligent and more far-seeing part. Let us all remember that without vision the people perish!

### It Is Rather For Us To Be Here Dedicated

This year we are celebrating the 175th Anniversary of the founding of Rutgers University. Next October we shall bring our celebration to a climax. After we have congratulated ourselves upon the record of the past, we shall have the opportunity, of re-dedicating ourselves anew to these high objectives. Let us pray for that strength of character, that forgetfulness of self, that high vision which will enable us to take our own parts worthily, each of us in his own sphere of action, in this building of a better world out of this present tragedy. Can that hope be better expressed than in the immortal words—

"It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion; that we here highly resolve that these dead shall not have died in vain; that this nation, under God, shall have a new birth of freedom; and that

government of the people, by the people, for the people, shall not perish from the earth."

We are being swept along on the wave of destiny. We are living at the high tide of history. But let no one tell you that it is a blind destiny or an irresistible tide. Within him each man still has his own destiny to shape. And as he shapes that destiny of his, he will help shape the destiny of mankind — infinitesimally, if you will, but nonetheless realistically. History tells us of the achievements of great men but the movements of history are governed and directed by what goes on in the hearts of the people. That is where national destinies are decided.

And so let me leave with you the thought that you are to play your parts, as Rutgers men, in one of the most critical and challenging periods of American history. If you are wise, you will give thanks that you are to witness first-hand one of the great dramas of all history. You will carry with you, I know, the realization that a gloomy heart and a long face never made life's pathway any easier. There will be many—none I trust here—who will stoop to the luxury of feeling sorry for themselves. You and I know that that is a pretty contemptible attitude toward life. These are days that call for faith. Let us keep our eyes to the hills.

*(Continued on page 72)*

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# VOCATIONAL IMPLICATIONS OF SELECTIVE SERVICE

WILLIAM MATHER LEWIS

*President of Lafayette College*

*Director of Selective Service for Pennsylvania*

**D**URING the months which have elapsed since September, 1939, we have been called upon to adjust our thinking to new



WILLIAM MATHER LEWIS

problems and new conditions as never before. Where formerly we listened to swing music, big league baseball games, the glorification of soap and cigarettes on the radio, today we follow with anxious interest broadcasts orig-

inating in London, Berlin and Moscow which give us glimpses of a world aflame.

Where, in other times the purchase of daily necessities and luxuries was a routine matter which demanded little thought, today we are constantly and forcibly reminded that we have passed from a peace economy to a war economy. Strained relations with foreign nations and armament fabrication in our factories interfere with the normal production of goods. Silk stockings become the object of frantic search, automobiles advance in price as they decrease in number, gasoline purchase is restricted after nightfall. Where taxes were painful considerations on and about March 15th each year, now they are a daily headache.

In no field have we been forced into new lines of thought more than in that of military affairs. Perhaps in no other matter did the thinking of Americans and Europeans differ more. Where the European was constantly aware of the great military organization maintained in his country: where he was called upon to undergo a certain period

of military training, the average citizen of the United States devoted only casual thought to the defense machinery of our country. But today the matter of military service has been brought home to everyone here. With the passage of the Selective Service Act in the summer of 1940 the national scene changed with startling rapidity. In a brief time we were faced with the problem of calling up for a period of training millions of our young men.

Today hundreds of thousands of them are actually under arms in camps throughout the country. They have laid aside pens, trowels, hammers, hoes and wrenches to learn how to handle instruments of a very different kind. Thus what was a matter of indifference to the vast majority of our people, now rates as a major interest, and any information concerning it is eagerly sought. Many who have relatives registered under Selective Service are asking the question "Is the time spent in the Army of any personal advantage to the individual or is it just a necessary piece of national service?" In other words what are the vocational implications of Selective Service?

## Physical, Social and Vocational Benefits

First let us consider the general benefits of a period of military training as they apply to a man's later vocational efficiency. Those of us who are closely associated with the Selective Service organization and who are called upon to study the records have a growing feeling of concern relative to the physical condition of American youth. Nearly forty per cent of those who have come up for examination have been deferred for physical reasons. Of those who are accepted a very large number show in many ways the need of physical building up, and this they are

bound to receive in the army. The regular life; well balanced meals; vigorous physical exercise will send them back into civilian life vastly improved in health.

A boy who has been in the army for four months recently wrote his mother thus—"Dear Mom, This man's army is great. I have gained eleven pounds, and not around the waist either. Tomorrow I begin the radio course." Naturally other letters could be quoted which complain about the poor army meals. We have learned in educational work that one of the universal objects of criticism among students is the food they are given. The same is true of soldiers. It is true that in some of the hastily opened camps the food was unsatisfactory at first. But personal inspection of kitchens and mess halls leads me to believe that our soldiers belong to the best fed army in the world and that they will learn much about balanced diet and food values which they never knew before. And this knowledge will be of vast practical value to them and to their families.

Commenting upon this matter an Army Officer said to me, "Dietitians are reported to have accused the Germans of withholding foods rich in Vitamin B from conquered people because the lack of this element effects the morale of a person. If a young person restored to a community after having been in Selective Service is properly fed, his attitude toward his work and his community will be different than it would be without the experience and contact with the army."

The social benefits of life in the Selective Service Army also have definite implications in connection with future vocational success. Alma Brandt who won first prize in a Pennsylvania State Essay Contest on the subject "Selective Service, Its Effect On Youth," sponsored by the American Legion, says this: "Selective Service brings men together for training in the total defense of their homes against possible enemies on land or sea and

against disease, ignorance, and incompetency. This training effort will not only make us invincible in war, but will also immeasurably strengthen and enrich our nation in peace. The realization of this cooperation of our conscripts today will enable us to have a more strongly united nation in the future."

"A great opportunity for boys to meet at least for one year on terms of absolute democracy is offered by the Selective Service program: Easterner meets Westerner; Farmer meets Manufacturer; City man meets Country man; Rich man meets Poor man. As a result of this, a by-product of conscription will be a realization of what types of humanity constitute these United States."

But what about specific vocational training? In the first place it should be understood that our military authorities are primarily interested in training soldiers, and any other activity is purely incidental. However modern mechanized warfare calls for knowledge in all scientific and technical fields. It is a contest of propagandists, chemists, mechanical engineers, meteorologists, mechanics and statisticians as well as of artillery men and infantry men. This fact is impressed on one who reads that in an army of a million and a half, approximately 400,000 men will have something to do with motor vehicles, either in the way of maintenance, repair or operation, and that the number of motor vehicles for an army of that size runs well over 250,000.

### Use of Testing

A visit to a Reception Station, where the Selectees are first made fully aware that they "are in the Army now" is very revealing. Here they are put through a comprehensive test composed of 150 questions to be answered in an hour. The purpose of this is not to learn the Intelligence Quotient of the man but to get a line on how quickly and





A CORNER OF THE COMMUNITY HOUSE  
AT FORT DIX, N. J.

accurately he can respond to orders. Concerning this test one of the officers in charge writes me: "By means of this test we are able to grade the men into five classes. Class 1 consists of the men with superior intelligence, and while a man may fall into this class and never become an officer we know that those who do become officers in later years will almost certainly be the men who scored into this class. Class 2 is the group from which we can expect to obtain the higher non-commissioned officers—such as Master Sergeants, Technical Sergeants and Staff Sergeants. Class 3 is the group which will furnish the lower non-commissioned officers—Sergeants and Corporals. Class 4 of course, will form the backbone of the Army—the basic soldier. The class 5 group are men of slight mental aptitude. And these men get special tests to ascertain whether they are illiterate or non-English."

After this test the men are interviewed by experts who secure the life history of each one to the end that when the period of basic training is over each may be placed where he will be of the greatest service to the Army. The information is recorded on cards. In addition to routine information concerning address, army serial number, and birthplace,

the card contains statements relative to jobs held, educational history, ability to speak foreign languages, ability to sing, play musical instruments, participate in theatrical performances, athletic ability, hobbies and the highest position of leadership held in civilian or military life.

Again to quote the officer:—"Now we come to the crux of the whole classification. The man is asked what his main occupation is. He may say 'carpenter,' for example, and we enter that under his occupation. But that is not enough; we want to learn what kind of a carpenter he is, what kind of work he did, and how skilled he is. We begin this with the question: 'Just what did you do?' From this we are able to record whether he was a carpenter building homes, working in a planing mill, or whether he did rough work. The length of his employment as a carpenter is recorded, the name and address of his employer, etc. We seek to learn the degree of skill he has as a carpenter, because a carpenter is one of the specialists who go to make up the Army today. I am told that there are in the United States something like 27,500 different types of employment. Of these the Army can use but 290. In other words, this highly specialized Army today must pay special attention to men coming from civilian life who have qualifications which could place them in one of these 290 specialist jobs.

"Now for each of these 290 specialist jobs the interviewer has in his possession a book called a trade test book. This book lists 20 questions concerning each of these 290 specialist jobs. To the man who says he is a carpenter, the interviewer will open the book to 'Carpenter' and ask the man each of 20 questions listed, for instance; what do you call the rafter that runs from the plate to the hip? What do you use to fasten the trunnions to the cope and drag? What do you call the top and bottom part of a paneled



door? To what does the term 'ogee' usually apply? Let's suppose the man says he is a photographer. Then he is asked 20 questions concerning that trade; for instance, he is asked if this certain chemical and another certain chemical are placed on a piece of glass, what would we have? The answer, of course, is a sensitized plate. He is asked concerning photographic lens of cameras, various types of films, and methods of printing and developing. Now, if the man can answer 15 of the 20 questions in his chosen trade, we mark him skilled. If he answers less than 15 but more than 10, we mark him as semi-skilled. If he answers less than 10, then we know that he is not a carpenter, but merely a hammer and saw man—not a photographer, but perhaps only the owner of a Brownie."

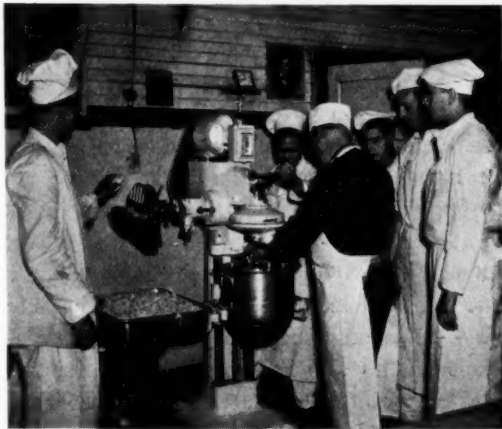
The officer's reference to the fact that there are 290 specialist jobs in the Army suggests the desirability of consulting the Army Regulations (615-26) which lists the Occupational Specialties for which enlisted men are needed. Here are a few of them chosen at random: aerial cameraman, airplane engine mechanic, automobile electrician, band man, blacksmith, bricklayer, chemical laboratory technician, chief clerk, railway dispatcher, general draftsman, horse trainer, instrument maker, lathe operator, meteorologist, mimeograph operator, general painter, photographer, printer, radio machinist, receiving clerk, typist.

### Opportunities for Vocational Training

It appears from this sampling of the vocational activities in the Army, that anyone who has a particular skill will have every opportunity to use and improve it during his period of training under Selective Service. It is also evident that an untrained man will have opportunities to develop into a skilled worker. As one expert points out the Army

is filled with occupational specialists and these must be adequately trained. For example there are now in effect at Indian-town Gap Camp where there are both National Guard and Selective Service troops, eight training courses attended by hundreds of men. These courses are as follows: Refresher Class for Stenographers; Sign painting and Card writing; Military Mapping and Sketching; Conversational Spanish; Conversational German; Related Mathematics; Bookkeeping and Accounting; Welding. In addition there are other organized courses concerning purely military matters.

The Army can make use of practically any skill a man has and the first thought of those in command is to find men who possess one skill or another. Naturally they do not wish to train men if there are those with the required ability available. But if trained men are not available the necessary instruction will be given. If for example, a Medical Unit needs a certain number of men and the Medical Replacement centers are unable to supply them, the required number of the so called "basic soldiers" will be sent to the Medical Unit and trained there. If at all possible, the men who are sent to the Medical Unit are those who have no particular skill



COOKS AND BAKERS SCHOOL  
FORT DIX, N. J.

that could be used elsewhere. There is no point in sending men trained in Carpentry to a Medical Unit—although such an allocation was not unknown in former mobilizations. The Engineer Unit requires men with rather special skills, those for example who know road construction: who can operate road construction machinery such as Air Compressors, Jack-hammers, Bull-dozers and Power-shovels; also men who know surveying and water purification. If the Engineer Replacement Centers are unable to supply the needs of a certain Engineer Unit, men who have some of the necessary qualifications will be used. Even though a man has had little or no experience with road construction machinery; if he has had experience in the operation of any machinery that is at all similar to that used in road construction, he is obviously more valuable to the Engineer Unit than one who has always had a desk job and has never used his hands. In other words if the man has had some training the Engineering Unit will give him the rest.

The military police need investigators as well as policemen and a man who has served as a detective on a city police force or just as a patrolman is more valuable to the military police than a man who has had no training at all in the preservation of law and order. However, if military police are needed and the Army cannot find men with police experience, they take men who seem to have an aptitude for such work and preferably men who cannot be used to better advantage in some other capacity. But just as no system works perfectly, or follows completely the theory worked out to get the best results, so does the Army find it difficult to carry out some of its plans. They know the best way—to requisition men from the replacement centers who have been trained for the jobs for which they are requisitioned but when they can't get such men they do the next best thing and try to get men who

aren't entirely unfamiliar with the job. Unfortunately, many of the replacement centers have been unable to keep up with the demand but it is hoped that soon the demand will slacken enough so that men can be trained as fast or faster than they are needed.

The Army prefers not to train a man in a job at which he is entirely "green." It would rather put a man in a job for which he is trained but even though this is the case the man goes on learning just as he would at his civilian job.

A juggling process goes on within the Army and a most serious attempt is made to fit the man to the job. However, a man who has training along mechanical lines may find himself doing a job that has no semblance to the work for which he was trained; he may find himself in a Medical Unit. The explanation may be that when he was assigned to duty there was no need for a man with mechanical ability. Instead a man of certain capabilities was needed for duty in a Medical Unit. It is to the advantage of the Army to put a man in a job for which he is qualified, but incongruities exist everywhere and the Army is no exception.

One of the most important things one learns in visiting an Army Camp is that the entire Army is one big vocational school. If a man enters the Army a carpenter and does carpentry work there the chances are that he will leave the Army a better carpenter. If he does work while in the Army that has no bearing upon his pre-Army job, he will undoubtedly leave the Army with a new skill.

Although the Army has a comparatively small number of vocational courses, the actual every day Army work represents practical training in vocations of all kinds.

### The Challenge To Youth

Let me point out again that in considering the vocational implications of Selective

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Service the immediate problem before our Army commanders is purely a military one and that all other considerations must be subordinated to that.

Speaking before a conference on employment and guidance, a member of the Personnel Section of the General Staff who has been drafted from civil life said that every man selected for training under the Selective Service Act, "will return to civilian life better physically and mentally, and those who have civilian skills adaptable to military objectives will be improved in them.

"However, the basic purpose of the Selective Service system is to train an American Army capable of coping with the best troops of any other nation and that purpose will control its operations. It is my hope and expectation that the young men will come back to their communities . . . with a truer

realization of the rights of the individual which our democracy guarantees, carrying with them also the definite obligations of citizenship."

That this hope will be realized is indicated by the intelligence showing of the Selective Service trainees. Reports from Washington based on intelligence tests given to 130,000 men show that 47 per cent are above the average of the population as a whole. This being the case, it may be expected that they will gain much from the broad educational opportunities offered in the Army.

Army camp librarians report that there is much demand for the best books in their libraries. They state that there is a great demand for technical works and for poetry while there is little call for books on the war.

*(Continued on page 58)*



### **"DEALING IN FUTURES"**

As elusive as the perfect system for picking the best investment is the infallible formula for choosing the right occupation. But, in connection with any type of business, there are two questions to be answered:

1. What opportunities does it offer?
2. What qualifications are needed for the job?

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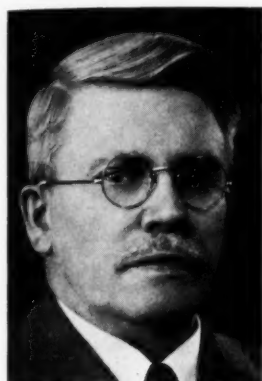
# THE NEED FOR COLLEGIATE INSTRUCTION IN INSURANCE

By S. S. HUEBNER, PH.D., SC.D.

*Professor of Insurance and Commerce, University of Pennsylvania;  
President of the American College of Life Underwriters*

## Growth of Insurance Courses in Universities and Colleges

"FORTUNATE indeed," as I had occasion to say recently, "is the calling which has succeeded in integrating itself



S. S. HUEBNER, PH.D., SC.D.

with the higher educational system of the nation so thoroughly as (1) to draw its strength of manpower largely from that system, and (2) to have its usefulness and nobility properly and forcefully reflected through

that same educational system to the public at large." Every profession seeks these two objectives. Although late in starting, insurance has made great headway in our universities and colleges in recent years, and bids fair before long to attain the desired goal.

Prior to 1904, collegiate instruction in insurance, on a comprehensive and organized basis, was practically unknown. Even as late as 1920, only 17 collegiate courses seem to have been established in this particular field. But since 1920 the progress has been most extraordinary. A recent detailed survey (1940), by Dr. David McCahan and Miss Anna M. Kelly, on "College and University Courses in Insurance and Related Subjects," shows that 143 universities and colleges are today offering 157 separate insurance courses of a survey character, with 131 of the institutions reporting an annual enrollment of

6,167. The list includes nearly all of the leading universities and colleges of the country. One hundred and six of the aforementioned courses were started since 1926. At the time of the survey, 20 additional institutions were planning the introduction of such courses as soon as possible. Nine universities already make a general course in insurance a requirement for all students in the business school department, while 28 more make it compulsory for all students in certain major groups of study.

Aside from general survey courses, covering insurance of all kinds, the aforementioned tabulation also shows that 85 universities and colleges (including nearly all of the larger ones) now offer 99 special courses in life insurance principles, practices, and economics, designed for specialization, with 75 of the institutions reporting an annual enrollment of 3,429. Prior to 1915, only 5 such courses were offered, while 55 out of 84 of these courses for which the date of origin was reported were started since 1926. Mention should also be made of the fact that 45 courses are now offered to meet the needs of underwriters preparing for the Chartered Life Underwriter (C.L.U.) examinations, thus showing how universities and colleges are responding to the demand for vocational training for life underwriting. According to the survey: "Seventy-nine universities and colleges have expressed their sympathy with the aims of the American College of Life Underwriters, and have indicated a desire to cooperate as far and as soon as possible with its general program of study. Of these, a large number have already broadened their curricula to include all of the C.L.U. subjects."

Sixty-eight universities and colleges re-



ported 107 specialized courses in the property and casualty fields of insurance, "53 of the courses being devoted primarily to the so-called 'property lines' of insurance, 26 to all forms of insurance or suretyship other than life insurance, and 28 to the so-called 'casualty lines.'" The combined enrollment of these courses totaled 3,215. All except 22 of these courses were started since 1920, and the organization of 11 additional courses in the property and casualty fields is now being planned.

So remarkable a growth justifies a brief explanation of the reasons for the progress. It also justifies a discussion of the value of organized instruction in insurance at universities and colleges to the following groups: (1) the lay student who is seeking a good business education, and who should, therefore, have a good grounding in the principles and services of insurance although he does not intend to take up insurance as a vocation; (2) those students who desire to specialize in insurance with a view to entering this field as a life career; (3) teachers who contemplate preparing for a career in the teaching of insurance; and (4) insurance company officials and managers, and university and college placement officers, so that they may cooperate most intelligently and effectively with each other in the selection, guidance, and employment of students desiring to enter the calling of insurance.

#### **Services of Insurance to the Community**

The rapid growth of collegiate instruction in insurance is primarily traceable to a realization of the outstanding services rendered by insurance. Insurance is today one of the nation's leading businesses, and offers special opportunities to college graduates who have the proper training. Its importance, however, reaches beyond this particular group, and extends also to all who have families to support, who have their own old

age to provide for, or who have private or business estates to protect against any of the many insurable hazards.

Insurance, or "risk and risk bearing" as it is sometimes referred to academically, enters vitally into all of our economic affairs, i.e., with respect to ourselves personally, our families, and our businesses or vocations. All business or vocational enterprises have as their basis human life values, or property values, or both. No matter what the type of value, in every instance one of the outstanding problems, if there is to be scientific organization, competent management, and freedom of mind, is the elimination of loss of such values to the individual through indemnity or loss prevention efforts. Fundamentally, insurance constitutes one of the major divisions of economics. Heretofore, economists have labored under the idea that all of man's economic endeavors could be classified under the major divisions of "production," "exchange," "distribution," and "consumption." They seem to be at a loss as to where insurance should be relegated with respect to these four divisions. The fact is that insurance should not be thus relegated, because to do so misses the real mission of the insurance service. Insurance constitutes a fifth major division of economics, and it is to be hoped that before long some economist will blaze the new trail of economic thought in the preparation of a collegiate text. Economic values are not only produced, exchanged, distributed, and consumed. They need also to be *protected* against a host of risks, and it is the function of insurance, to evaluate and to bear these risks. Accepting this view, it does seem incredible that a collegiate school of business, if the other major economic divisions are required in the curriculum, should fail to recognize equally a subject which is so inherent in all economic undertakings as risk and risk bearing is, and which must be

understood as regards principles and practices if it is to be used wisely.

*Services Rendered by Life Insurance.*—Life insurance has as one of its outstanding purposes the financial appraisal of human life values and the capitalization of those values for insurance purposes, in the interest of family and business, against loss through premature death. Human life values, although much more important than property values, have been sadly neglected in our economic reasoning. A knowledge of the economics of life insurance will give a proper understanding of this important value. Life insurance applies in a tangible way to the money value of human life substantially all the outstanding economic ideas—such as appraisal, capitalization, depreciation, the use of sinking and emergency funds, credit, investment, conservation, indemnity, trust arrangements, testamentary bequeathals, and liquidation—which we have been accustomed for many years to teach and to apply to the organization and management of our property affairs. But in addition to this fundamental function, life insurance also serves the following nine purposes:

(1) It affords credit, with the character and ability (the life value) of the policyholder serving as collateral. In this way many are enabled to borrow, although they

do not possess any tangible property collateral. Others may use life insurance as additional security for their property secured loans. Just as the mortgagee is protected with property insurance, so the creditor on personal loans is protected with life insurance against the loss of the life pledged as security.

(2) It greatly stimulates thrift. At present, policyholders in American life insurance companies have approximately \$30,000,000,000 of insurance savings standing to their credit. About one-twelfth of all the wealth of the nation is now under the protective wing of our legal reserve life insurance companies. In fact, with the exception of pure term insurance, which avoids the savings effort, legal reserve life insurance is an installment plan of thrift. On one side of the account is an accumulating thrift fund, gradually growing to the face value of the contract at its due date, and on the other side is decreasing term insurance which protects the savings account against failure of the saver to continue his savings effort because of premature death. The two sides of the account, whenever death occurs, always equal the face of the contract. Upon survival of the policyholder at the due date of the contract, the

(Continued on page 63)

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## PROBLEMS IN MEDICAL EDUCATION CREATED BY THE SELECTIVE SERVICE ACT

DR. WILLIAM PEPPER

*Dean of Medical School, University of Pennsylvania*

**T**HE Selective Service Act has not presented the many serious problems which were anticipated. It has, however, increased



DR. WILLIAM PEPPER

the work in this Dean's Office. It disturbed the medical students for a time, but as probably none of our students who remain in good standing will be drafted, medical education will go on as usual.

The Association of American Medical Colleges appointed a "liaison officer" in each State to keep in touch with the State Director who had been appointed by the Selective Service System Headquarters. Finally Headquarters issued a Memorandum which went to all State Directors and was by them sent to all Local Draft and Appeal Boards. This Memorandum called attention to the need for medical graduates and stressed the propriety of deferring from military service all medical students.

Medical Schools have furnished their students with affidavits, certifying to the students' good standing, expected year of graduation, etc. On the affidavit given the students at the University of Pennsylvania School of Medicine, the following extract from the above mentioned Memorandum was quoted:

"A. Supply—Currently there are approximately 5,000 medical graduates entering the profession each year. This represents the only source of supply for future re-

quirements necessary to supplement the present force of the medical profession and to replace those leaving the profession. When it is realized that approximately 27,000 of the nation's physicians are 65 years of age or older, and that 3,800 are lost to the profession each year, this supply is not large.

"B. Demand—Experience shows that not more than 60 to 65 per cent of medical graduates are physically and otherwise qualified for military service. Consequently, there is an acute demand for physically qualified medical graduates by the Army to serve as physicians. The civilian needs require approximately 3,800 graduated medical students each year to replace the physicians who are lost to the profession through normal attrition. The demand for these replacements is identical with the demand for doctors, since they constitute the only source of supply.

"C. Shortage—There are no replacements for medical students who are withdrawn from school. Consequently, if the supply of medical students who are to be graduated into the medical profession is reduced through their induction to serve in a non-professional capacity, an increasing reduction of physicians available for military service as well as an aggravation of the increasing overall national shortage will result.

"D. Policy and Procedure—It is of paramount importance that the supply be not only maintained but encouraged to grow, and that no student or interne who gives reasonable promise of becoming an acceptable medical doctor be called to military service before attaining that status. Local boards should remember that a deferment is not an exemption and that the obliga-

tion and liability for military service remains upon its expiration. The procedure governing deferment of medical students is that prescribed by the Memorandum to all State Directors (1-62) of April 22, 1941—(See also, Bulletin No. 10 of the American Council of Education attached thereto and Night Letter to all State Directors, April 30, 1941)."

Our students have presented these affidavits and their requests for deferment until qualified to practise to their several Draft Boards. So far this method of handling this situation seems to be successful. I will be much surprised if any one of our students in good standing will be drafted.

#### Effect Upon Internes

We consider that the one or two years spent by all our graduates as internes in a Hospital to be a very important part of

their medical education, and the various Hospitals have been with good success securing deferment for these young doctors. However, it remains to be seen whether Draft Boards will allow these internes to serve longer than one year. At some of the Hospitals, the interne service has been two years in length and in other Hospitals, but one year. In the two-year Hospitals, the internes usually spend the first year working in the laboratory and in the wards of the various medical specialties such as Ophthalmology, Dermatology, Neurology, etc., and then in the second year, they have their major services in Medicine and Surgery. Consequently, if a man was obliged to leave at the end of his first year, he would not have completed the most important part of his interne training.

Internes may now obtain Commissions as

*(Continued on page 73)*

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tual experience in the arts of leadership and of influencing others. They have learned the elements of salesmanship and have experienced the earning and handling of money.

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## THE RED CROSS NURSES' TRAINING CAMP AT BRYN MAWR COLLEGE

MRS. THOMAS RAE BURN WHITE

**D**URING the last war, in June of 1918, a Nurses' Training Camp was opened at Vassar College, prepared as to program by Vassar and members of the nursing profession and financed by the American Red Cross. Its purpose was to give to a group of college graduates three months' intensive work in the theoretical side of nursing with some preliminary instruction in the practical side, and then to send them in the fall to selected Hospitals from which they would graduate in two years instead of the usual three, their entire course of training as registered nurses thus being two years and three months. They were to have more than the usual theoretical work in the hope that it might fit them for more difficult tasks in the Army or at home than would otherwise fall to the lot of the newly graduated nurse.

Today an emergency exists similar and yet dissimilar. The United States is not technically at war, but the defense program is already making heavy demands on the supply of nurses, and the shortage is already acute and will become increasingly severe. No one today can deny the existence of a national emergency although people differ as to the kind of emergency it is. The college women will be among the first to wish

to fill the needs of such an emergency and the nursing profession will be one of the directions in which they will be most useful.

To assist in meeting this situation, a Training Camp has been started at Bryn Mawr College. A group of students, graduates of colleges all over the country, have come to Bryn Mawr to take a pre-clinical course that will lead them to the schools of nursing in October of this year. They will be graduated from these schools sooner than the average entering student in accordance with the laws of the State in which they receive their professional education. As they have had greater preparation than most students, they will be able to receive their degree somewhat sooner.

The plan is under the management of an Executive Committee of members representing Bryn Mawr College which has loaned its campus, the Woman's Medical College which has loaned its laboratories, the Nursing Profession which has helped in organizing the academic work, and the American Red Cross which has underwritten the plan financially. It is the hope of those connected with this plan that it will serve as a pattern for training camps which may develop in different parts of the country next year, if the

*(Continued on page 73)*

**P**erhaps there is some branch of our business which appeals to you as a life career—either in this country or abroad. We require a limited number of qualified young men each year. The Director of your University Placement Service has information on file about our Company. Consult him; he will be glad to assist you.

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# WHAT THE ASSOCIATION CAN MEAN TO HIGH SCHOOLS THROUGHOUT THE COUNTRY

FRANK R. MOREY

*Supervising Principal, School District of Swarthmore*

**D**ESPITE the heavy enrollments of students in our many American institutions of higher learning, the high school still



FRANK R. MOREY

remains the agency of final formal instruction for over four-fifths of the boys and girls of our land. Attention is therefore quite properly being directed to the improvement of services and facilities of place-

ment by our educational institutions of secondary school level. In so many of them the curriculum offerings, the guidance programs and placement practices are out of date and short of the needs of today's rising generation.

In thinking of the opportunities before this Association in working with high schools, we must remember that the needs of high school students encompass the needs of all youth, for compulsory attendance laws have brought virtually all young people of secondary school age into the school. Our problem then is to examine the needs of youth, with especial reference to the assistance that can be brought to those now in secondary schools. Basically, such needs include:

1. A feeling of being needed; they must be needed in their homes, in the communities, in the nation. They must count for something, they must feel important and useful.

2. Interesting experiences; these must include work, which is satisfying in and of itself; compensation, which brings an understanding of the value of money and practical economics.
3. Sound health, both physical and mental, for they are inter-related. Individually and nationally good health is a supreme need of wide implications.
4. Recreational opportunities that augment and supplement the other vocational, social, and civic activities of youth; that build character rather than degrade it; that enrich life rather than lower.

An effective program of placement requires thoughtful attention to earlier conditions; before placement there must be adequate training in skills to make the worker worthy of his hire; before and with this training there must be the satisfactory development and adjustment of the individual in personality and health; he must be developed as a citizen; and he must have an adequate program of guidance in vocational choices so that later he may not be found to be a misfit.

## Training and Placement Agencies

Today there are a number of agencies working on state- or nation-wide programs of training and placement. Attention is called to several of these.

The National Youth Administration has recently undertaken an extension of its work program which includes job training in needed defense trades and subsequent placement in industrial plants and business houses. Dealing as it does with out-of-school youth, this program tends to meet

the needs of those who, because of inadequate guidance or wrong intentions, either did not secure trade training, or who could not because of the non-availability of vocational schools, grossly inadequate for the needs of present high school youth. Good work is being done by the N. Y. A. workcenters. However, the public must not become apathetic and ignore its obligation to see that local school boards provide vocational schools where needed.

The American Youth Commission of the American Council on Education has published a number of valuable studies on youth problems, job finding, occupational placement, and educational counseling. Some of the most valuable for the consideration in placement are: *Youth Work Programs*, *Matching Youth and Jobs*, *What the High School Ought to Teach*, *Work Camps for High School Youth*, and *Wanted: A Job*. These are authoritative publications deserving wide study and extensive acceptance.

In cooperation with the National Occupational Conference, thirteen school superintendents studied problems of occupational adjustment at first hand in their tours of leading American cities. They emphasized the close relationships existing between adequate training, effective guidance and wise placement.

A leading magazine that has provided valuable leadership in the field of guidance and placement, is *Occupations—The Vocational Guidance Magazine*. Its published articles include such topics as "Guidance and Placement of America's Youth," "Occupational Adjustment," "Seattle Meets Occupational Needs," "The New National Occupational Information and Guidance Service," "Cooperative Placement Service for Juniors," and "Youth and Labor; A Symposium."

<sup>1</sup> *Matching Men and Jobs*, published by the Social Security Board, Federal Security Agency. U. S. Government Printing Office.

The principal task of organized placement and job-finding falls to the Federal, State, local, and private employment agencies. While many youths secure jobs on personal application or through friends, the more extensive use of public and private employment facilities will provide efficient, time-conserving, and thorough fitting of men and women to jobs. The work of the public employment offices is stated in a recent federal publication:

"Workers need jobs and employers need workers. Public employment offices serve both. About 1,600 such offices have been set up in cities and towns throughout the country to bring together job seekers and job openings quickly and efficiently.

"In a single day an employment office may register an architect, a tap dancer, a typist, a plumber, a fashion artist, a factory manager, a cook . . . and many other kinds of craftsmen, clerks, and laborers. By carefully investigating each worker's qualifications and each employer's requirements, the employment office saves time, trouble, and expense for both. It helps employers find workers who know their jobs and helps workers locate jobs for which they are fitted.

"Employment service is part of the national Employment Security program, operated jointly by the States and the Federal Security Board. Each State, the District of Columbia, Alaska, and Hawaii has its own employment security program which provides public employment service for all job seekers and employers, and unemployment compensation for insured white-collar and industrial wage earners."<sup>1</sup>

Attention will here be directed to the problems youth faces in its post-high school efforts at job-getting. The guidance work of the school, whether extensive or meager, has been done. The educational or training period has been completed. The young peo-

ple are leaving school either because of graduation, or earlier termination due to any one of several causes. The need of self-support demands that a job be found. Studies have shown that if individuals are not to join the chronically unemployed, the job must be found soon. What placement services are available, and how may they be used and improved?

The state employment offices are willing to aid youth secure employment. When the worker "registers," his name is placed in a complete classified register of persons in the community who have registered for jobs. Because the various employment offices throughout the country are linked together through a national clearance system, he can be advised of the nearest available job for which he is fitted. As an additional service many employment offices now have on their staffs trained junior counselors whose particular job it is to advise young people about their employment problems. Because these offices are located only in the larger cities, the service is not available in smaller communities or even in nearby territory.

There is need for an extension registration service on a cooperative basis, whereby the high schools will assist and be assisted by the regular employment offices. Some form of liaison should be established so that every high school would be affiliated with some such office enabling every school-leaving youth to have the service made available to him.

Junior Placement Services are functioning in the larger cities. They are doing a splendid work and are deserving of every support and encouragement. The plan should be much more widely adopted.

There should be some plan of inter-high school cooperative placement service in the more thickly populated sections, particularly where small high school units are numerous. They are too small and their staffs too in-

experienced to be very effective under present conditions. But if a plan of cooperative placement were developed for them by some agency, state or national, the service to potential workers would be greatly extended through development of better placement technique in general use, and more efficient recruitment.

Suggestions of work experiences as a part of the high school program, have been made with especial authority in the monograph *What the High Schools Should Teach*. There is vital need of a broad, useful plan of general apprenticeship training. Some plan needs to be developed for wide application of the needs of youth about to leave school. Such apprenticeship or work experience could be included as a part of his high school curriculum and job-training program. It would in part at least fill the great need in modern civilization and specialized industry, of providing work participation as a part of career tryout and selection. Many such experiences would lead to post-high school employment opportunities.

Follow-up procedures have been developed and are being encouraged by the National Association of Secondary School Principals. The purpose of the plan is to give the school facts upon which to judge the adequacy and appropriateness of the high school program measured in terms of the later needs of each pupil. This is good so far as it goes. The schools need such a program and should institute it just as promptly as possible. In addition, there is needed a careful plan of placement follow-up, and occupational adjustment and readjustment. Otherwise neither youth, nor industry, nor the community will be adequately served.

#### Pre-Placement Problems

The pre-placement problems of the young man or young woman contemplating a college or university education should be men-

tioned, even though briefly. In the high school years their placement difficulties are remote, yet there are several aspects that must be considered.

The high school needs to encourage and find part-time and summer employment for its pupils in line with their vocational interests, and college training intentions. Work experiences of this kind will aid in clarifying career plans, and in securing practical experience to enrich the college course, and perhaps increase likelihood of employment after college graduation.

High school placement officials should cooperate with college placement officials in local communities. They could aid in bringing graduates and local employers to the attention of one another; or could direct employers or take their inquiries to appropriate college placement officials.

#### The Association's Opportunity for Service

How then can the Association of School and College Placement benefit the secondary schools throughout the country? A part of the answer is implied in the discussion above concerning the high schools' placement problems. Briefly stated they are: a more adequate program of placement service by public employment offices, working closely with high schools in every community, and otherwise being of service outside of the larger cities; extension of junior employment service programs; a smoothly functioning program of inter-high school placement effort; a program of work experiences as an integral part of the placement effort; placement follow-up and occupational adjustment procedures adopted quite generally by high schools; and cooperation with college and university placement offices. The Association has a tremendous opportunity. It can:

1. Integrate and present for high school use, the proposals and programs of the

various agencies including those mentioned here as working in this field. From the mass of material available, simple, effective programs can be outlined for use by administrators and teachers of the many smaller schools.

2. Assist employers and schoolmen to use and improve present agencies. Much good is now being accomplished and leadership is needed to make it more effectual.
3. Encourage cooperation of placement and employment agencies, to weld all into a unified, integrated program.
4. Encourage research by whatever group—university students, school research departments, or others, seeking constantly to improve placement work.
5. Publicize the best programs, to serve as a model for others to follow.
6. Support adequate legislation where better laws will bring better conditions.
7. In general, encourage the best in education—curriculum, guidance, vocational preparation—which will prepare better candidates for available jobs.

Without great expenditure of funds or enlargement of staff, several means might be employed to further the ends heretofore mentioned:

1. Publication encouraged to the maximum—in the official magazine, in other publications, by any publisher—at the same time stimulating the writing of material that will aid the whole program.
2. Scheduling meetings, conferences, and discussion programs in various centers, leading to the organization of local programs and locally functioning groups. These volunteer groups can do much to develop and promote improved programs.
3. Local committees to be appointed out-

*(Continued on page 76)*



## OPPORTUNITIES FOR WOMEN IN BUSINESS

By BEATRICE JONES, C.L.U.

**T**HAT business opportunities for women exist is not a debatable question. It is a fact. That such opportunities are great and growing is attested by these figures: the number of women gainfully employed in the United States, as revealed by the official census of 1910, was 8,075,772; by 1920 this figure had increased to 8,549,511. That decade showed an increase of less than a half million while the 1930 census reported 10,752,116 employed women. Of every hundred people at work for pay in 1930, twenty-two were women. That business opportunities for women are by no means limited to jobs of a routine, mechanical character is evidenced by the fact that today women occupy presidencies and executive vice-presidencies of a number of companies, advertising and department store management posts, comptrollerships, and executive positions in a wide range of business operations.

Since opportunities for women in business exist and are increasing, this discussion will be directed to the question of practical ways and means of translating opportunity in general into opportunity for the individual—for you.

### Importance of Self Evaluation

Assume that you have decided you would like to or must earn your own living. You have completed all the formal schooling you can afford or are willing or able to accept. You have heard something of what goes on in the name of business. You have read stories about career women that intrigue your interest. You have decided you want a career in business. But you, a woman



BEATRICE JONES, C.L.U.

seeking your opportunity in business, must be primarily concerned with this problem, not as a generality, but as it applies to you. Hence the logical first step toward the solution of that problem is an evaluation of yourself. You can make this analysis, but self analysis is valuable and constructive only when made with complete candor and honesty. Approach it in that attitude. If you can be honest

with yourself it will be of vast assistance to your success in business.

Ask yourself: What have you done with your time thus far in your life? If you are a beginner in the search for opportunity the answer will be that you have been in school. How did you stand academically? In what subjects were you especially proficient? Which aroused and held your interest? In what extra curricular activities did you participate? How, candidly, would you rate your standing in these activities? In what particular field was your interest and enthusiasm especially enlisted? Debating? Dramatics? The School Paper? Organization of Student Groups? Whether or not it relates to your school life, what do you like best to do? People, generally, like to do that which they do well. Have you any special skill—natural or acquired? What kind of a job do you want? If you could choose your spot in the business world and start there, what would you choose? Why? What do you believe you have to offer the business world? Do not overlook the significance of these factors as indicators of talent and ability which may prove useful in guiding you to your logical niche in business and of benefit to you in your workaday relationships.



### Seeking of Guidance and Advice

Fortunately you need not rely wholly upon self evaluation because there are resources in most urban centers for vocational guidance. You will be benefited by availing yourself of these services. In most cities you will find a Bureau of Vocational Guidance, Placement Agencies, either commercial or connected with recognized schools, and Personnel Departments of industrial establishments. The better organizations of this kind will gladly and, usually, with intelligence assist you in gauging your abilities and limitations so far as your vocational interests are concerned. These aids have been established to help people find their proper channel in business—people looking for a job—people like you. Avail yourself of these services and find out if these specialists agree with your own estimate of yourself.

Mention should not be omitted of the value of the counsel of mature and understanding individual business men and women. These are rich, latent resources in every business community for the guidance of those who are about to take their first steps into the business world. Many an experienced business person, while he may have no job to offer, is able and gladly willing to give the tyro sound and helpful suggestions as to how to proceed with the quest for a job.

When you wish to go somewhere, the knowledge of where, exactly, you intend going will help you in reaching your destination. Do not discard this because it is a truism, for its sense is too sound to be disregarded. Particularly for the young woman seeking her place in business, it is a truth to cling to. While you are studying your possible talents and abilities for business, you would be well advised to ponder the business world to which you intend offering your services. Endeavor to find

what business has to offer you—what kinds of jobs appear to be available and what qualifications these jobs require.

In analyzing the possible market for your services, it is desirable to abandon the posture of self analysis. View this problem more objectively. Make an effort to discard the what-I-would-like-to-do approach and substitute therefor: what-is-there-to-do which I might reasonably hope to have a chance to undertake.

Many beginners make the mistake of seeking their first job with a large organization. This is a very natural attitude, of course, because it seems that a company which uses hundreds of employees for a particular kind of job would be the place most likely to employ the beginner. However, the advantage of the small business operation for the beginner should not be neglected. The particular benefit arises from the assurance that the novice will not be submerged in the mass or subject to the narrow specialization that exists in the large company where each department becomes a business in itself. The more generalized nature of the duties of the individual in a small business will provide an opportunity to gain an understanding of the general nature of business operations which would not be possible to gain in the same time in a large and complex organization.

Personnel administrators, advisers, consultants and analysts will all agree on some basic points, for example: young people entering business are rarely able to know at the outset what particular job will provide their greatest enjoyment and satisfaction. People enjoy most the job they do best. At twenty it is difficult to predict what latent skills may have expressed themselves by thirty-five. Another point of agreement is that young people possessed of combinations of qualities such as poise, judgment, emotional balance, energy and good

common sense are so rare that those thus fortunately endowed need have no fear in their search for an outlet in the business world.

### How to Look for A Job

The young woman candidate for employment, reinforced presumably, by a candid effort to assay her own assets and liabilities, by the advice of mature, experienced business acquaintances or friends and, where possible, the specialized advice of a vocational guidance agency, now faces the problem of where to look for a job. Jobs, usually, are found in one of the following ways: through information and contacts of relatives, friends, and acquaintances; a personal canvas of prospective employers; answering newspaper advertisements; registering with employment agencies. In setting forth on the job quest, the young woman may well have with her one or more letters of recommendation from her physician, pastor, principal or dean and, if she has been previously employed, from her employer. She would also be wise to have a number of "lines out"—that is to contact all job sources available to her as soon as possible, rather than to follow but one clue or lead at a time. Further, she should not shrink from asking the prospective employer whose response is, "sorry, no vacancy now," to suggest where else she might find an opening of the kind she seeks.

### Kinds of Opportunities Available

Without attempting a complete or even comprehensive listing of the business positions for women, the following may be mentioned as those in which a large and increasing number of women find employment opportunities: receptionists; file clerks; machine operators—tabulating, comptometer, billing; bookkeepers; cashiers; typists; stenographers; secretaries; statisticians; jour-

nalists; advertising copy writers; staff workers in personnel departments; tea room and cafeteria managers; nurses; dietitians; costume designers; stylists; and retail sales. Some of the positions mentioned are so commonly the means of a woman's entrance to the business world that a more detailed discussion of them is pertinent.

Ability to use a typewriter is a key that fits many business doors. Many a young woman desiring to enter business will be well advised to possess herself of this key. From typist to stenographer to secretary is the business route travelled by innumerable women. Perhaps no single job in business offers better training discipline and education for business in general than the opportunity to serve as secretary to an able executive.

Another young woman seeking her opportunity in business finds that stenographic skill is one she cannot acquire. She lacks the coordination necessary to master short hand symbols and the use of the typewriter. For her many other routes are possible; for example, statistics offers opportunity for the young woman with a talent in the use of mathematics. This field is an ever widening one. Industry is more and more engaging in operations which require the service of statisticians. Group insurance, health benefits and pension plans are projects in the field of personnel administration which require this specialized service. Sales departments need this skill to make accurate market surveys. Production, purchasing, accounting and advertising departments increasingly utilize the service of statisticians. These and many other avenues open for thoroughly trained mathematicians useful places in the business world today.

Merchandising offers opportunities of great variety to women. It is not without significance that the pioneering women in this work have risen to the top with a speed

not paralleled in other fields. Department stores have been quick to recognize their particular aptitude in this work. It is a natural spot for women. Women are the shoppers of America. They make an overwhelming majority of the purchases that keep the wheels of retail sales in motion. A woman usually is quick to sense another woman's desires, to estimate her needs, to develop ideas that will motivate her to buy and to do this with a degree of accuracy not natural to men. A woman knows the little things that please a woman. This is all important where the customer is a woman.

Design and styling are the indispensable talents in merchandising. They might properly be described as the vitamins of good business health in this field. "Style sense" is a term used freely in describing the qualities which are important for success in a merchandising career. The term "style sense" means that a person possesses a consciousness of line, fabric combinations and color which mold into an article pleasing to the eye. The essence of style is the nice application of the design to the customer, so it is clear that underlying this "style sense" must be an aptitude for analyzing customers of all types. If this is the field that interests the young woman opportunity seeker, let her ponder carefully whether she has a contribution to make here. It is a paradox of the fashion world that so many women who achieve notable success in this field do not symbolize their great gift by their own appearance. A woman may be greatly gifted in the art of making herself look smart but have no talent whatever in using this gift for the benefit of other women. But since the other women are the purchasers and their satisfaction will determine success in merchandising, whether one's "style sense" is personal or universal is a vital point in estimating an aptitude

for success in this phase of business.

Business offers opportunities for both nurses and dietitians. Among other things, the widespread use of group insurance creates the need for medical departments in all large companies. Wherever employee health is important to the employer, the company will require the employment of a graduate nurse. Similarly those companies employing large numbers of workers often find the operation of their own lunch room proves an asset in the promotion of sound employer-employee relationships. Where such a plan is in operation, a dietitian is usually employed. This work will require specialized training in practically all cases. The ability to plan properly balanced menus, to supervise preparation and service, to buy in proper quantity, to use surpluses in practical ways and thus to insure the sound economy of the operation are the skills required in this field. If those ancient, homely arts—the planning and preparation of food, the economical purchase of supplies, give a woman solid satisfaction—if she feels that she has a particular aptitude and can project that skill into larger units than the family—then she may be justified in believing that here opens for her an avenue into business.

There is opportunity for women in journalism. But because thousands of young women who aspire to write turn to journalism as the springboard into a career of authorship, this field in many places is overcrowded. However, if writing is the job without which life will be empty, the job whose absence will make for frustration and disappointment, certainly for such a woman journalism is the right path and one upon which the young woman possessed of high resolve and a modicum of literary aptitude can reasonably hope to plant her feet.

Selling—that wide and far flung occupation—provides opportunity for women in

increasing numbers every year. Every person alive sells from birth on. Children start selling before they can talk and sell with amazing results. They sell their families on their importance, on the fact that they want things their own way, that they are the masters who will control the situation. They realize success in the control and domination of others long before they know anything about controlling themselves. This selling process goes on throughout life whether people label it selling or not. But the thing that differentiates selling as a career from the selling which is an integral part of living, is that the former requires that tangible evidence in cash accompany the transaction.

Perhaps no single field of selling offers the opportunity for women that is to be found in the field of life insurance. The earlier paragraphs of this article have been addressed to the opportunities for young women—beginners in the business world. The selling of life insurance offers opportunity to the mature, the older woman who needs to work, either to earn her entire living or to supplement an inadequate income. If a woman can sell life insurance she can gain for herself the basic essentials of a job important to all women who work.

1. It will enable her to earn a fair rate of pay without discrimination because of her sex. Financial independence is hers by virtue of her own effort.
2. It will provide an outlet for creative work and imagination—a job packed full of drama and excitement—providing an ever increasing challenge. It cannot become dull and routine because no two cases will ever be identical.
3. It will give her opportunity to satisfy her instincts of altruism—a feature most important to the mothers of the race. Each new problem solved gives

her a sense of having helped her neighbor.

4. It will greatly reduce the spectre of unemployment as she grows old. It is a job where her value increases to her company with her advancing years. And it will provide withal a measure of self discipline which will add to her mental and spiritual stature.

\* \* \* \* \*

The purpose of this article has been to convey to women, whether they be those seeking an initial connection with business or those aiming to qualify for subsequent steps therein, these simple, realistic words of advice: First, strive to view yourself candidly from the standpoint of what you believe you may have to offer business, what you believe you can do well and find interest and satisfaction in doing. Here the pitfall is wishful thinking—the temptation to substitute the what-I-would-like-to-do approach for the what-honestly-am-I-capable-of-doing approach. Second, do not fail to check and correct your self analysis with the evaluation of some experienced and understanding man or woman of business. In addition, wherever possible, seek the counsel of the specialist in vocational guidance. From such persons and agencies you can hope to obtain, not only assistance in judging what you may have to offer business, but also practical aid in finding the particular niche for yourself. Third, bear in mind that to be a satisfactory employee means that you must perform and produce, and that in turn requires skill of some sort—modest or unique, general or highly specialized. It is necessary to possess some capacity and preferably proficiency in using the tools of business. If the person at the next desk knows this and you do not, that person's job will be secure and her advancement probable while

*(Continued on page 76)*

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# UNIVERSITY OF PENNSYLVANIA PHILADELPHIA

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*The Work of the University is Divided into the Following Undergraduate and Graduate Departments and Other Divisions:*

The College	The Department of Landscape Architecture
The College Collateral Courses	The College of Liberal Arts for Women
The Summer School	The Graduate School
The Towne Scientific School	The School of Medicine
The Moore School of Electrical Engineering	The Law School
The Wharton School of Finance and Commerce	The School of Dentistry
The Post Graduate Division of the Wharton School	The Courses in Oral Hygiene
The Institute of Local and State Government	The School of Veterinary Medicine
The School of Education	The Graduate School of Medicine
The Division of Nursing Education	The Evening School of Accounts and Finance
The Illman-Carter Unit	The Extension Schools
The Division of Vocational Teacher Education	The Department of Physical Education
The Division of Cultural Olympics	The Division of Physical Instruction
The Division of Schoolmen's Week	The Division of Student Health
The School of Fine Arts	The Division of Intercollegiate Athletics
The Department of Music	The Division of Physical Education for Women
	The Division of Student Affairs
	The Reserve Officers Training Corps of Army and Navy
	The Psychological Clinic

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*Information on the above University Departments and Divisions may be secured from the Secretary's Office, University of Pennsylvania, 3446 Walnut Street, Philadelphia, Pa.*



# THE NEED FOR PROFESSIONAL PERSONNEL

FRANCIS J. BROWN

*Consultant, American Council on Education, Washington, D. C.*

**T**HIRTY million persons employed in industry; a standing military force of two and a half million men; and the peak



FRANCIS J. BROWN

has not yet been reached! It is estimated that short of military participation in the war, the peak man-power load will be attained by October, 1942, when an additional ten million workers will be needed in de-

fense industries, approximately half of whom will be transferred from decreasing non-defense employment, and an additional million or more men will be required for the land and naval forces.

Although the magnitude of the demand for personnel could not be accurately predicted a year ago, a number of agencies and organizations had already begun to give serious consideration to potential "bottle-necks" in skilled, technical, and professional personnel.

The Joint Army and Navy Munitions Board prepared a list of skilled occupations essential to the maintenance of defense production. Occupations were keyed in terms of actual and potential needs for personnel. The list has been continually revised to keep abreast of shifting shortages in personnel and is now cleared through the Bureau of Labor Statistics, designated by the Office of Production Management and National Headquarters, Selective Service System. The current list includes 347 occupations, of which 24 are on the professional level.

## Determination of Personnel Needs

On the recommendation of representatives of the American Council on Education, the American Council of Learned Societies, the National Academy of Science, and the Social Science Research Council, a roster of scientific and professional personnel has been developed. The training, experience, and special fitness for defense activities of more than two hundred thousand persons have been tabulated on punch cards. Perhaps unfortunately, the names were procured almost exclusively from membership rolls of professional societies, and the list may include an undue proportion of those who seek to improve their professional status rather than of those who are eminently successful.

The Office of Education appointed Dean A. A. Potter to determine actual and potential needs in the field of engineering. More recently this study has been extended to include the fields of chemistry, physics, and industrial supervisors. The last term has been broadly interpreted to include government and business administration and accountancy. Sixteen and a half million dollars have been appropriated for the extension and development of short-term courses of college grade in these four areas.

The Subcommittee on Military Affairs of the National Committee on Education and Defense, and the American Academy of Science, at the request of National Headquarters, Selective Service System, in October, 1940, drew up the following list of professional fields in which a shortage of personnel was imminent and in which students "in training or preparation" should be given occupational deferment: Chemistry, Engineering, Dentistry, Pharmacy, Physics, Medicine, Biology and Bacteriology, Geology.

**Occupational Deferment**

This list, with slight modifications, was officially confirmed by the Bureau of Labor Statistics, and in April, 1941, National Headquarters, Selective Service System sent a directive to local boards through State Directors, urging them to give serious consideration to occupational deferment for students in these areas. Since this original list was sent out to local boards, more specific directives have been submitted regarding the fields of medicine and dentistry, and two additional fields have been included for "serious consideration for occupational deferment" by local boards: students preparing to be veterinarians and those studying in the field of agriculture.

Summarizing the present status of occupational deferment, on the professional level, the following occupations have been officially listed by National Headquarters, Selective Service System as those important in the national defense program and in the maintenance of the civilian welfare of the nation, and in which it is expected that the demand currently exceeds or in the immediate future will exceed the supply of qualified personnel:

Agriculturalists	Engineers
Anesthetists	Aeronautical
Architects, Marine	Agricultural
Bacteriologists	Chemical
Biologists	Civil
Chemists	Electrical
Assistant	Industrial
Biological	Marine
Inorganic	Mechanical
Organic	Metallurgical
Physical	Mining
Dentists	Port
Draftsmen	Sanitary
Aeronautical	Geologists
Construction	Cartography
Electrical	Geophysics
Marine	Hydrology
Mechanical	Meteorology

Laboratory  
Assistants  
Chemical  
Physics  
Metallurgists

Pharmacists  
Physicians  
Physicists  
Veterinarians

It is recognized that no classification of occupations can include all sub-title designations. Consequently the United States Office of Education's *Dictionary of Occupational Titles* has been accepted as the authority for such definitions and a copy is in the hands of each local selective service board.

The fact that National Headquarters, Selective Service System has designated the above fields as those in which there are actual or potential shortages of personnel does not imply that it is inclusive; that is, that blanket or group deferment is provided for all men either now engaged in such professions or in training or preparation for such occupations. Full responsibility, subject only to the process of appeal, rests with the local board to determine the extent to which its decisions will be governed by the information supplied by National Headquarters and whether or not an individual is actually or potentially a "necessary" man in such fields. Colleges and universities can be of very real assistance to local boards in assisting them in making Selective Service truly selective by submitting to the local board a thoughtful appraisal of the ability of the individual student. Bulletin No. 10 in the series *Higher Education and National Defense*, published by the American Council on Education, Washington, D. C., describes the procedure recommended by National Headquarters.

Likewise, this list of occupations is not exclusive; that is, it does not exclude for possible deferment individuals in occupations other than those listed, or in training for them. A letter urging local boards to

adopt this policy was sent out by National Headquarters on June 4, 1941.

### Survey of Potential Personnel Needs

During this past year representation has been made to the writer by several organizations and many individuals regarding actual or potential shortage of personnel in professional fields other than those listed. After consultation with National Headquarters and in cooperation with a representative of the Bureau of Labor Statistics, two forms were prepared and a national survey of potential personnel needs was conducted. One form was sent to national professional associations to procure an over-all picture of needs and supply of available men in various occupational fields. The other was sent to the placement bureaus of 250 colleges and universities selected for distribution geographically and according to types of institutions, to the State Directors (Superintendents) of Education, to fifty superintendents of schools in cities above 250,000 population geographically distributed, and to 25 commercial teachers agencies.

Replies were received from 124 placement bureaus in colleges and universities in 37 states well distributed among types of institutions, from 26 superintendents of city schools, 36 State Directors of Public Education, and 24 national professional organizations. A few replies were also received from the commercial teacher-placement agencies, but not a sufficient number to be included in the summary.

The form specifically listed the following professional fields: Teaching (vocational education, including industrial arts, physical sciences, social sciences, mathematics, health and physical education, and agriculture, with space to list other fields); personnel administration and guidance; business administration; accountancy; other fields. For each field numerical data were requested for

male personnel under the following captions: Number of vacancies reported; number of persons available to fill such vacancies other than those now employed; number graduating in 1941; number graduating in 1941 already placed; and estimated shortage.

It is apparent from the data that any general statement urging deferment of teachers and those preparing to teach would be unwise. It must be definitive in terms of subject-matter fields. Although vacancies were reported in English, social studies, and foreign languages, the supply equals and, in social studies, far exceeds the demand.

There is a surprising shortage of men in the field of music, especially to conduct school bands and orchestras. The number of vacancies in excess of available personnel is small, 192, but this undoubtedly represents a significant per cent of the men engaged in and preparing for this profession. This appears all the more true since the placement bureaus reporting had already placed in positions all of their available candidates.

The field in which there is the greatest demand in relation to supply is vocational education, including industrial arts. The 48 replies giving statistical data indicated 2,288 vacancies with but 318 persons available to meet this demand. In addition, 42 other replies state that the demand is in excess of the supply. One state reports that the number of men available is not one-fifth of the demand, another says it would be necessary to "import into the state at least 200 vocational teachers," and one reports a 15 per cent shortage throughout the state. Superintendents of schools reported "cannot get teachers, men or women," "acute shortage," "serious emergency in this field," and "have exhausted all available sources." The placement bureaus reporting numbers for June, 1941, graduates show 412 graduat-

ing, of which 306 had been placed by July 15, while 23 bureaus not giving numbers reported "all seniors placed," and one stated that juniors were accepting appointments to teach and were being given emergency licenses.

Similar analysis might be made of each of the other areas. The order of need both in gross figures and in the relative need in proportion to total teachers in such fields is: Health and physical education for men, the physical sciences, mathematics, commercial subjects, and school administration.

It should be borne in mind that these data are as of July 15, and that many vacancies would not as yet have been reported, while most of those seeking positions would have already indicated their availability. It is probable that by September the situation will be even more serious.

In professional fields other than teaching, excluding those fields already urged for occupational deferment, business administration shows the greatest need and account-

ancy second. The supply of persons available for employment in personnel administration and guidance seems about equal to the demand.

New needs on the professional level will develop as national defense gears to its maximum speed and inclusiveness. The first demand was for semi-skilled and skilled labor. Soon it was apparent that professional technicians were needed and the present list of areas for occupational deferment is still largely of this character. Recently the need for price control and the establishment of priorities have created a demand for economists that far exceeds the supply. As attention is turned also to the human problems involved in maximum defense, there may develop a need for the social scientists. The essential thing now is flexibility in both the training program and in deferment, in order that personnel needs may be met speedily and effectively and before they become "bottle-necks" in vital defense activities.



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# THE ENGINEERING, SCIENCE AND MAN

## ENGINEERING AND SCIENCE PHASES

A. MERLIN SONES

*Assistant to Regional Adviser for U. S.  
Drexel Institute of Technology*



A. MERLIN SONES

**T**HE first year of defense education at the college level has come to a close with approximately one hundred twenty-five thousand men from Maine to California in its classes. In region No. 6, comprising Eastern Pennsylvania, Southern New Jersey, and Delaware, about ten thousand men have taken courses of twelve to twenty-four weeks' duration in technical subjects. The Congress appropriated \$9,000,000 for the country-wide Engineering Defense Training program.

The 1941-1942 program, officially designated Engineering, Science and Management Defense Training, is a continuation of the old Engineering Defense Training. The appropriation is about twice that of last year. Under the new program the facilities of colleges offering degrees in physics and chemistry and in industrial supervision and management, as well as in engineering, will be utilized.

### Operation of E.S.M.D.T.

Courses are conducted under direct agree-

ments between the Office of Education in Washington, D. C., and individual colleges. Costs for organization, supervision, instruction, supplies, etc., for any authorized class are borne by the U. S. Government. As soon as a course is planned, a preliminary proposal stating the minimum and maximum number of persons likely to be enrolled and the probable cost of the course is forwarded to Washington by the college. When this preliminary proposal has been approved, the classes are organized and teaching begins. About one week later, a final proposal for this course is submitted, setting forth the actual number enrolled, and a carefully prepared statement of proposed costs for the course. Certain limitations are placed upon the amount of money that may be spent. Upon approval of this final proposal, the college receives the full amount. The comptroller of the college is charged with the responsibility of dispersing funds received.

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# AND MANAGEMENT DEFENSE TRAINING PROGRAM

## THE MANAGEMENT PHASE

VICTOR S. KARABASZ

*Associate Professor of Industry  
University of Pennsylvania*



VICTOR S. KARABASZ

**E**ARLY in the Defense Program it became apparent that there would be a great shortage of engineers. Sample regional surveys had been made which indicated, for example, that the aircraft industry of Long Island and northern New Jersey alone needed nearly one-half of the output of the Engineering colleges of the entire country. Another survey in Pittsburgh, Pennsylvania, and the seven surrounding counties indicated that only 257 men were qualified to meet a potential demand of ten times that number. Definite shortages of technically trained people were also found to exist in the California and the Chicago areas.

In the light of these disclosures Congress on October 9, 1940, passed an act appropriating \$9,000,000 to the U. S. Office of Education for "the cost of short engineering courses of college grade, provided by engineering schools or by universities of which the engineering school is a part . . . which plans shall be for courses designed to meet the shortage of engineers with specialized

training in fields essential to the national defense."

The Office of Education appointed an advisory committee on Engineering Defense Training whose membership included outstanding engineering educators. This committee functioned under the Chairmanship of A. A. Potter, Dean of the Schools of Engineering, Purdue University. The country was divided into twenty-two regions each with its Regional Adviser whose function it is to coordinate the engineering defense training program with the needs of industry and government.

As the program developed it became apparent that it would require an adequate staff to administer it within the U. S. Office of Education. As a result Dean R. A. Seaton was appointed Director of Engineering Defense Training in the Division of Higher Education of the U. S. Office of Education. He was assisted by Dean G. W. Case and other engineering educators.

*(Continued on page 77)*

## COOPERATING WITH NATIONAL DEFENSE

By PAUL H. MUSSER

*Administrative Vice-President, University of Pennsylvania*

**I**N accordance with its historic policy of cooperation to the fullest extent with the Government of the United States in any



PAUL H. MUSSER

period of national emergency, the University of Pennsylvania has within the past year developed a broad and varied program of cooperation in the interest of national defense.

The first step in this direction was taken by Dr. Thomas S. Gates, president of the University, when, on June 5, 1940, in a letter to Edward R. Stettinius, Jr., of the Advisory Commission to the Council of National Defense, he placed at the service of the Government the entire resources of the University.

This was followed by the appointment of a Committee on National Defense at the University, consisting of administrative officers and members of the faculty, to function as a liaison group between the University and governmental departments concerned with national defense activities, and to coordinate all phases of the University's program in this field. This committee has the advice and cooperation of national defense committees of the American Council on Education, the Association of American Colleges, the College Presidents Association of Pennsylvania and other official agencies.

### Today's Challenge to Higher Education

The University of Pennsylvania recog-

nizes the dual nature of the challenge which today confronts American higher education, calling upon our colleges and universities, on the one hand, to exert their great potential force as bulwarks of the freedom which has nurtured them, and on the other hand, to accept the responsibility for cultural and scientific leadership which has been thrust upon them by the decline of free education and scholarship abroad.

It has taken care, therefore, in the organization of its defense endeavors, to guard against any impairment of the fundamental work of education which is its traditional and continuing obligation. The defense program includes training in military and naval science and tactics, engineering, management, and other subjects; research in medicine, surgery, and the physical sciences; and a wide variety of group and individual services.

There are now in training at the University an Army Reserve Officers Training Corps, a Naval Reserve Officers Training Corps, and a Medical Reserve Officers Training Corps, each with enrollment up to the limit of the assigned quota. In addition, the University has two units in pilot training courses under the Civil Aeronautics Authority.

General Hospital No. 20 has been organized at Pennsylvania under the Medical Reserve Corps of the Army and is ready for immediate service with a staff of seventy-three medical officers, 120 nurses, and about 500 enlisted personnel. If called, the organization will be capable of caring for 1,000 to 2,500 patients. Under a commanding officer from the United States Army, Dr. I. S. Ravdin, Harrison Professor of Surgery, will be in charge of surgery, and

Dr. Thomas Fitz-Hugh, Jr., Assistant Professor of Clinical Medicine, will be in charge of medicine.

Naval Medical Specialists Unit No. 8 of the Fourth Naval District, organized at the University under Dr. Richard A. Kern, Professor of Clinical Medicine, has a staff of eighteen medical officers and six nurses who are subject to call in a national emergency. The medical officers, all of whom hold commissions in the Naval Reserve Corps, would be available to take over duties as heads of departments in a naval hospital or on a hospital ship.

More than 2,200 employees in twenty-six industrial plants in the Philadelphia area which are engaged in national defense production received advanced instruction in various phases of engineering and management during a portion of the past academic year in courses supervised by the University under provisions of the engineering defense program of the United States Office of Education.

Under the same auspices, the University instituted on June 16 of this year an intensive twelve weeks' summer course in production engineering for qualified graduates of colleges of liberal arts, schools of business administration, and universities. In addition, the University's Towne Scientific School made its laboratories available beginning June 23 in connection with an intensive ten weeks' course offered in cooperation with the Drexel Institute of Technology for selected graduates of the academic departments of high schools.

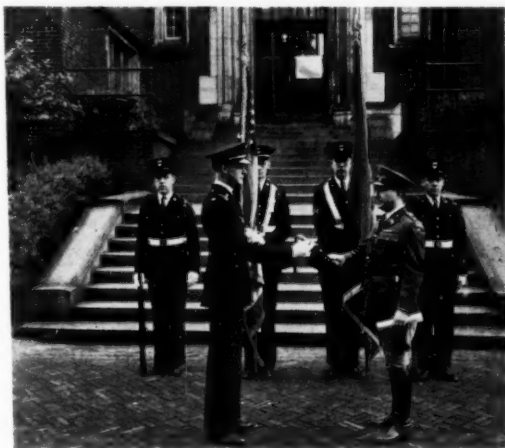
Also started on June 23 was an intensive ten weeks' course in electrical engineering, conducted by the Moore School of Electrical Engineering of the University and open to college graduates who had majored in mathematics and physics. All of these special courses in technical and management phases of engineering have been financed by the

United States Office of Education and offered without tuition charge to the student.

Two new courses introduced in the curriculum of the University's thirty-seventh annual Summer School session, which closed on August 12, were one in the geography of national defense, including discussion of the location, topography, climate, and other physical factors in relation to the military defense of the United States and her neighbors, and one dealing with the Federal government, business, and national defense, including problems of price control, credit, housing, and labor.

Many aspects of national defense were illuminated by experts from the University's faculty, from other institutions, and from the non-academic world during a five-day Institute of Public Affairs which was a feature of the Summer School program.

Anticipating employee health problems which may be presented by intensive activity in defense industries, a survey has been conducted to determine the desirability of organizing at the University an engineering defense training course in industrial hygiene and a proposal covering such a course has



PRESENTATION OF THE AMERICAN LEGION SABER  
TO THE OUTSTANDING CADET OFFICER OF  
THE INFANTRY R.O.T.C. UNIT

been submitted to the United States Office of Education.

Special defense research projects have been undertaken and are being conducted in physics, chemistry, the several branches of engineering, and medicine. Subjects of intensive research in various departments of the University's School of Medicine include blood substitutes for use in transfusion, treatment of surgical shock, antisepsis, the use of sulfanilamide compounds for the control of infection in wounds and fractures, control of the spread of respiratory diseases through ultra-violet irradiation of the air in semi-confined spaces, vaccines designed to provide some degree of immunity to influenza, and many other projects bearing promise of results which may be of great importance in conserving the lives and health of both military and civilian forces.

#### How the Faculty is Serving

Many members of the University's administrative staff and faculties are devoting substantial amounts of their time and energies to defense work in posts to which they have been called because of special knowledge and experience.

President Gates is serving as one of seven regional coordinators of the Defense Contract Service throughout the country. Responsible for the Third Federal Reserve District, which embraces the major industrial areas of three states, he is striving to stimulate the sub-contracting of defense orders so as to utilize all available manufacturing facilities.

Dr. O. H. Perry Pepper, Professor of Medicine, is a member of the Executive Committee of the Division of Medical Sciences of the National Research Council in Washington, chairman of the Council's Committee on Medicine, and a member of a committee of seven appointed by the Secretary of War to investigate the problems

of controlling influenza and other epidemic diseases in the nation's armed forces.

Dr. Joseph Stokes, Jr., Professor of Pediatrics, also is a member of the latter committee. Dr. Esmond R. Long, director of the University's Phipps Institute, is chairman of the National Research Council's Subcommittee on Tuberculosis, and Dr. Robert H. Ivy, Professor of Maxillo-facial Surgery, is chairman of the Council's Subcommittee on Faciomaxillary and Plastic Surgery.

Nine other members of the University's medical faculty are also serving as members of committees and subcommittees of the Council's Division of Medical Sciences, which were organized at the request of the Surgeons General of the Army, Navy, and Public Health Service.

Dr. Stuart Mudd and Dr. Earl W. Flosdorf, Professor and Assistant Professor of Bacteriology, respectively, are helping to coordinate work going on in several places in the drying of blood serum and blood plasma for shipment and storage—a procedure largely facilitated by pioneer work in which Drs. Flosdorf and Mudd participated.

Dr. William Pepper, dean of the School of Medicine, is one of three members of the Committee on Preparedness of the Association of American Medical Colleges, serving as a medium of information between the nation's medical colleges and the Selective Service Boards.

Dr. S. S. Huebner, Professor of Insurance and Commerce, is a member of an advisory committee appointed to consider problems pertaining to insurance in the War Department.

Dr. Morris S. Viteles, Associate Professor of Psychology, is developing techniques for graphic recording of performance during flight to further the analysis of training methods for aviators.

*(Continued on page 62)*



## DEFENSE ACTIVITIES IN OTHER COLLEGES

### A SYMPOSIUM

#### UNIVERSITY OF CHICAGO

ROBERT M. HUTCHINS, *President*

THE University of Chicago Council on National Defense was organized under the Chairmanship of Vice-President Emery



ROBERT M. HUTCHINS

T. Filbey with a membership of eighteen deans and administrative officers for the purpose of coordinating the University's contributions to national defense and its response to demands by the Government.

Our activity related to national defense has so far consisted of instruction, research and personal service of faculty members on and off campus. In the University College our offerings so far have consisted of a series of lecture-conferences entitled "Are We Thinking Straight" and a course on the development of European Military Institutions. The Home Study Department has offered courses on military history and military cartography. The Institute of Meteorology offers basic instruction and advanced training in meteorology and conducts research attempting to establish a better basis for predicting weather.

In connection with the national program of training in industry the University has just completed arrangements for training over one hundred and fifty workers in chemistry and physics. This program if successful may be expanded.

In the Graduate Library School Institute this summer a series of lectures and dis-

cussions were offered on the implications of print, radio and film for democratic government.

The Harris Foundation Institute cooperated with the Division of Cultural Relations of the Department of State and the Coordinator of Commercial and Cultural Relations between the American Republics to bring together numerous Latin-Americans and Canadians for discussions of the political and economic implications of inter-American solidarity. The timeliness of the subject and the participation of many distinguished delegates produced sessions of wide interest and usefulness.

The Walgreen Foundation in the past year has offered six series of lectures organized for the purpose of creating better understanding of American principles and institutions. Plans are under way for the continuance of similar lectures and for the publication by the University Press of the lectures already given.

The University of Chicago Round Table, which reaches about five million listeners, has in many of its programs made significant contributions to the understanding of the various issues created by the war.

Many research projects are now under way in the physical and biological sciences, either under contract with federal authorities or on the initiative of the University. These projects are so numerous and some of them so confidential in character that only general reference to them is permitted.

Our strictly military offerings to students are given under the direction of the Institute for Military Studies. The Institute offers elementary and advanced courses and lecture programs, including pre-service basic

(Continued on page 57)

## STANFORD UNIVERSITY

E. E. ROBINSON, *Acting President*

WHEN a university is called upon to go "all out" for national defense, it is necessary to consider the strategic position of universities in the national emergency. Because we have young men we have manpower; because we are a university we have brainpower. The nation's defense requires both.

Expanding the training of men in the critical defense fields of engineering, chemistry, physics, medicine and industrial production has naturally caused a good deal of readjustment at Stanford University. Thus far it has been possible to accomplish this without impairment of standards. In the School of Engineering, for instance, we have introduced a four-quarter, year-around curriculum, making it possible for the student to get his A.B. degree in three years, where formerly it required four. A similar four-quarter schedule is under consideration for the School of Medicine. For the training of students in cost accounting, finance, personnel administration and production control, our Graduate School of Business has opened its courses to seniors and is operating the year-around.

In research, the diversion of scientific investigators to defense problems has made

expected inroads on pure research. Nevertheless the contributions of our Guggenheim Aeronautic Laboratory in airplane propeller development and of Stanford physicists in the development of the Klystron radio detector are of special importance to the national effort.

In the field of policy, Stanford University has been working with other institutions of the Pacific Coast and with the American Council on Education to the end of advising, sorting and training students in essential defense fields; cooperating with draft boards toward the elimination of conflicting practices; ascertaining the kinds of specialists needed in local areas; proposing reorganized courses of study to fit men for the emergency; and bettering Latin-American relations.

In addition to these more striking phases of the emergency measures to meet national defense demands, Stanford maintains a special faculty committee, headed by Dean S. B. Morris of the School of Engineering, which was appointed by the President of the University in June, 1940, to plan additional timely activities. The programs of the Reserve Officers Training Corps and of the Civilian Pilot Training are being continued in full force.

## Philadelphia Electric Company

*Live Electrically & Save*

## MIAMI UNIVERSITY

A. H. UPHAM, *President*

**M**IAAMI UNIVERSITY has an Administrative Council which meets regularly each week with the president of the University presiding. All deans and administrative officers are members, with representation from the teaching staff. Thus it has seemed most convenient and effective to constitute this council the University's Committee on National Defense. General policies are determined here, and responsibilities are assigned either within or without the council.

With the assistance of the department of government, the council has undertaken throughout the year to interpret the regulations and processes of the selective service program. The first student registration was conducted on the campus. Information has been given to students by mass meetings, conferences, and supplements to the college paper. One forum discussion was held with the state director as guest speaker. Every means has been used to advise students who seem to qualify for occupational deferment.

Since Miami University is a rather large institution in a small town and offers no degree in engineering, we have had to give particular care to the selection of defense courses. Civilian Pilot Training has been popular and successful. A new department of Aeronautics has now been established in the Liberal Arts College, with more than thirty semester hours accepted toward a degree. Short courses below college grade for out-of-school youth have been offered in the department of industrial arts. Similar courses of college grade will be possible under the new federal appropriations, some

of them at extension centers in neighboring cities.

For high-school graduates who show little interest or success in regular college curricula, the University has instituted a group of two-year semi-professional courses emphasizing the same practical interests as those stressed in the national defense program. These interests are broadened by general courses in good reading, citizenship, psychology and the like.

It is the belief of the council that one important line of defense now is the defense of education itself. We are striving to protect students from undue confusion and panic, to help them make the most of educational opportunities while they can get them, and to select superior abilities for the superior training that will be sorely needed later on.

# ALLEGHENY

ONE OF AMERICA'S  
FINE LIBERAL ARTS  
COLLEGES



FOUNDED IN 1815 AT  
MEADVILLE, PA.

## UNIVERSITY OF TEXAS

HOMER P. RAINY, *President*

**I**NSTITUTIONAL cooperation in defense activities at the University of Texas revolves largely around its College of Engineering, although important individual contributions are being made in other divisions. In the College of Engineering, the National Defense program has resulted in the emergency use



HOMER P. RAINY

each work night of the machine and metallurgical shops from late afternoon to early morning for trade training of machinists and welders, and the training, each semester, of forty primary and twenty advanced students in the Civil Pilot Training program of the Civil Aeronautics Authority. Under the Engineering Defense Program of the United States Office of Education, college-level courses, from freshman to graduate rank, have been extended to several hundred students registered in full-time pre-employment courses. Similarly, part-time, college-level in-service courses in Engineering Defense Training have been extended to industrial centers. These have generally been advanced courses in such important subjects as marine engineering, naval architecture, electronics and communications and defense housing architectural engineering. In addition, a graduate program in advanced aeronautical engineering and in communications engineering has been developed to meet the needs of highly trained men in these two fields.

For the most part these courses have all been given under the direct supervision of regular members of the Engineering Faculty without any increase in their compensation. The University has provided freely of high grade assistants, secretarial help and travel funds to extend the usefulness of its faculty without decreasing the effectiveness of instruction to regular engineering students.

The Dean of Engineering is serving as Regional Advisor to the United States Office of Education in the development of its Engineering Defense Training program for Region 18, which includes the State of Louisiana and the State of Texas east of the Pecos River, and as Regional Advisor to the Safety Engineering Defense Training Sub-Committee of the United States Department of Labor in their program for "Conservation of Man Power in Defense Industries."

Matters relating to the occupational deferment of students or postponement of their induction on the grounds of unusual hardship are handled in the Office of the Vice-President. The Vice-President certifies to the educational status and training of student registrants who seek deferment or postponement of induction. Forms for this purpose have been devised and, when properly executed, are sent to the local boards concerned, whose responsibility in this regard under Selective Service Regulations may then be more effectively carried out.





## SPARK PLUG OF *Progress!*

**I**N A dim-lit laboratory, amid a maze of apparatus and a mass of figures, a lone individual labors on into the night. Time has ceased to exist, for his is a labor of absorbing interest—the development of an idea—a “spark”—which, when perfected through his own initiative, will be given to the world to assist its progress.

That's the American way... progress through the “spark plug” of personal initiative.

So it is with U. G. I. Fifty-nine years ago a group of individuals, with foresight and initiative, and unfettered with restricted horizons, brought U. G. I. into existence. Since then, an almost continuous stream of “ideas” has been born, reared and perfected through unceasing study and research by individuals within the company. . . . And passed on unselfishly for the benefit of millions upon millions of users of gas and electricity.

In the future, as in the past, opportunity for the development of individual initiative must be preserved if progress is to continue.

### The United Gas Improvement Co.

1882-1941





## OPPORTUNITIES FOR YOUTH

By AUBREY WILLIAMS

*Administrator, National Youth Administration*

**T**HE National Youth Administration helps to build a stronger America by providing opportunities for young people



AUBREY WILLIAMS

— opportunities for students in schools and colleges to continue their education, opportunities for out-of-school youth to acquire the practical experience they need for private employment.

Now, in time of emergency, the National Youth Administration is further contributing to a strong America by preparing out-of-school youth for jobs in vital defense industries. At the same time this agency is continuing the student work programs and the regular out-of-school work program it has operated since 1935.

When President Roosevelt on June 26, 1935, issued the Executive Order creating the National Youth Administration, he said: "I have determined that we shall do something for the Nation's unemployed youth, because we can ill afford to lose the skill and energy of these young men and women. They must have their chance in school, their turn as apprentices, and their opportunity for jobs—a chance to work and earn for themselves." And he added, "The yield on this investment should be high." Today the returns on the investment are far greater than we ever expected, as thousands of young men and women take their places in the defense effort—whether in the armed forces or in civilian pursuits.

### Out-of-School Work Program

During the fiscal year ended June 30, 1941, more than 908,000 different youth were employed on the Out-of-School Work Program. This year, due to reduced appropriations by Congress, the number of youth employed by the National Youth Administration may be somewhat less. It is estimated that an average of 300,000 youth will be given work experience on the Out-of-School Work Program each month, and that an average of 340,000 students will be assisted to remain in school by NYA employment.

To youth whose paths into industry are barred by lack of experience, the National Youth Administration offers an opportunity to gain that experience at useful work for wages. Many types of experience may be gained on NYA projects. During the month of June, 1941, 127,000 young men and women were employed in shop production projects; 84,000 were employed on construction work; and 119,000 were working on clerical, professional and health projects, while 39,000 were on resident projects.

It should be emphasized that NYA shops are production shops which turn out goods and articles for the benefit of public agencies which might otherwise be without them. Industrial conditions are observed wherever possible. A youth employed in such a shop knows what it is to punch a time clock, to have a job to do, and a time limit within which it must be done. He knows something about safety practices and relations with his fellow workers. Most important of all, he is learning how to work, how to use his hands, how to produce. The result is that he enters upon a job in industry far

better prepared to go to work than the youth without the benefit of work experience.

### Services to the Community

This policy of producing and rendering services for public agencies, has resulted in great benefits to communities over the entire nation. Usually, the public agency will act as co-sponsor for an NYA project, furnishing materials, paying rent, or perhaps furnishing supervision for the youth workers. The National Youth Administration supplies the labor in such cooperative ventures, with the co-sponsors receiving the products, while youth gain experience in actual work.

Examples of the types of community services offered by the National Youth Administration may be found in California where municipalities have made extensive use of NYA projects. NYA youth in that State cooperated in making an extensive survey of services and facilities in city government, collecting and compiling data from more

than two hundred cities. The final report will be of great value to city officials in the State in planning future activities. In San Francisco, the municipality has provided a four-story building for an NYA work center. With the city as co-sponsor, a dozen projects are underway, including the making of furniture for the city, and the photographing of 125,000 structures for the assessor's permanent building record. Other municipalities are sponsoring construction projects which include a public library, a municipal garage and a number of community centers. NYA defense shops have made such sheet metal products as trash containers, waste paper baskets, files, typewriter stands, small hand tools and metal signs. This work being done in the State of California is being duplicated in every part of the nation, as communities receive contributions to their physical wealth as well as to their social well-being, through the work of the National Youth Administration.

*A* man's highest aim is to live at the top level of which he is capable. The University's first aim is to help him reach and stay on that level.

**UNIVERSITY OF PITTSBURGH**



NYA YOUTH ON STUDENT-AID PROGRAM EXAMINING SLIDE TO DETERMINE ORIGIN AND TYPE OF BACTERIA

### Benefits to National Defense

The production shop program of the National Youth Administration is making a substantial contribution to the program of national defense. Since we have seen the successes of the Nazi war machine in Europe, we have come to realize the importance of mechanization in modern warfare. We have come to see that a nation is no stronger than its industrial units, and that the struggle for the preservation of democracy will be won on the production lines. Today we are making great strides toward building an industrial system which will produce the military machines necessary for our defense. Factories and plants are being built and put into operation in every part of the nation, to do this job of defense preparation. Yet a steady flow of materials and men is necessary to complete the task. Qualified workmen are needed to man the industrial front of democracy. Therein lies the field in which the National Youth Administration is making one of its greatest contributions to the survival of our way of life.

In meeting the demand for greater numbers of qualified workmen, the National

Youth Administration is giving increased emphasis to the metal and mechanical fields. Workers are being prepared for the aircraft industry, for shipbuilding, and for radio work. Other youth are working with sheet metal, welding, pattern making, forging and doing foundry work. Workshop facilities in many instances are being used by two or three shifts each day, with 365,000 young men and women expected to be fitted for jobs in defense industries before July 1, 1942.

In many instances, products from NYA shops are destined for defense uses. In one metal shop, torpedo parts are being made for the Navy. In another, youth are producing steel cots and beds for the use of the Army. Others are making tool chests and lockers for government plants, while woodworking projects are turning out desks to be used by defense agencies in Washington.

More than 16,000 young men and women are working on projects connected with Army posts, military establishments and selective service boards. Work of a mechanical or clerical nature at Army establishments releases soldiers for more strictly military duties, while giving youth work experience in a variety of tasks. Typical of the NYA projects operated in conjunction with Army posts is that at Fort Benjamin Harrison in Indianapolis, Indiana. A complete woodworking and metal working shop is being installed where such things as tables, magazine racks, shelves, lockers, hammers, punches, and cold chisels will be made. Windows and door screens for all of the Fort buildings will be built, street signs will be made for all Fort roads, old barracks will be wrecked and the materials salvaged, and landscaping will be done on the Post grounds. Prints of plans and drawings will be made for the Army staff by the NYA drafting project in Indianapolis, while work

clothes are being made by NYA industrial sewing projects in the city.

Several NYA projects are being operated in cooperation with the United States Army Air Corps for the purpose of providing workers for rapidly expanding needs, such as the maintenance and service of Army aircraft. The youth are gaining experience in engine, instrument or plane repair, machine, propeller or parachute shopwork, or woodwork. Numbers of youth from these projects are being appointed to Civil Service positions as mechanic-helpers in the air depots.

The National Youth Administration is unique among youth agencies in that it prepares young women as well as young men for jobs in industry. Young women employed in NYA shops are gaining experience in radio construction and repair, welding, riveting, light machine work and machine inspection. They have been found to be excellent mechanical workers, especially in jobs which require precision and manual dexterity. Industrial sewing is another important activity for girls, both in relation to the national defense and in preparation for jobs. Working with power machines similar to those used in industry, NYA girls have turned out many thousands of garments, for the use of NYA workers, for hospitals, and for the armed forces.

That this work for girls may become of great importance in the national emergency is indicated by the fact that many types of defense jobs are being held by women in embattled Britain. A very high percentage of the workers who are producing the planes and tanks and bombs and shells which the British are using in the fight for existence, are young women. American experts who have visited the British plants have testified to the aptitude which these young women demonstrate in their industrial tasks.

Credit for the success of this program of

preparing young people for jobs in industry must go to the public schools and the various State employment services as well as to the National Youth Administration. By agreement with the United States Office of Education and through the cooperation of local school systems, NYA workers are receiving classroom instruction in subjects related to the work they do. For instance, a youth employed in an NYA machine shop may attend classes in a nearby high school where he receives instruction in machine shop practice, blue print reading, and shop arithmetic. On certain defense projects attendance in related training classes is required, while for the remainder of NYA youth, such attendance is optional. However, in almost every instance these young people have been anxious to take advantage of the additional educational opportunities offered them.



NYA YOUTH RECONDITIONING A UNITED STATES NAVY VESSEL

In a number of instances schools and colleges have acted as sponsors of NYA projects, providing housing, and equipment as well as related training for the project. The school in turn receives the benefit of the work done. An example of this is the NYA Resident Center operated in cooperation with the Fort Hays State College in Kansas. Youth on the project are gaining experience in livestock and dairy work, farm work, building construction, clerical work, and ceramics. Arrangements are made to offer these workers a limited number of hours of work in the college.

#### Problems of Rural Youth

In the development of the NYA program special attention has been given to the problems of rural youth. Since rural areas are frequently thinly populated, making impossible the establishment of local work centers with youth living at home and working by the day, resident projects have been set up on a national scale. Young people employed on these resident center projects live at the job site, in quarters ranging from remodeled dwelling houses to large dormitories. More than 600 of these centers are now in operation, employing more than 39,000 young men and women. Originally planned to care for rural youth, resident centers now employ youth from all types of communities. A feature of resident center life is self-government by project youth, with young workers gaining experience in the practices and methods of democracy.

The National Youth Administration is also benefiting young people in rural areas by devoting a significant part of its program to the construction of 1,000 small vocational and agricultural buildings for school authorities. Through this work, many young people living on farms and in small communities will be able to obtain occupational training through local school facilities which

would otherwise be denied them. A dual purpose is served as NYA youth obtain practical experience in working on a useful job, and the schools are enabled to do a better job by the provision of vocational training facilities.

#### Values of NYA Program

The health and physical fitness of youth has become a major concern of the National Youth Administration. The health needs of American youth have been emphasized by recent statistics showing that 38% of the young men examined by Selective Service Boards have been rejected because of poor health or physical defects. The National Youth Administration is attacking this problem in a number of ways. Every young person employed on the NYA program is given a physical examination by a competent physician. The purposes of the examination are to discover health conditions that need attention, to assist in the guidance of individual youth in physical development activities, and to facilitate the assignment of youth to the types of work consistent with their health and strength. At all times there is a definite effort to improve the health of young workers through technical assistance in matters of nutrition, sanitation, physical developments and recreation. Physicians, dentists, and medical and dental associations have given their wholehearted cooperation to this health program.

An important feature of the NYA program is that young workers receive wages for work performed. Youth employed on the Out-of-School Work Programs work on a schedule of not less than 80 nor more than 160 hours per month, the exact number being determined in each State by the State Youth Administrator. Monthly earnings range between \$17 and \$25, depending on the geographic area and the type of work being done. Youth employed on resident



centers receive somewhat higher pay, but deductions are made for subsistence.

The value of the NYA program can be measured in part by its success in placing youth in jobs in industry. Thousands of young men and women owe their jobs to the work experience obtained on NYA projects. During the fiscal year ended June 30, 1941, more than 325,000 young men and women left the rolls of the National Youth Administration to take jobs in private industry. Many of these young people, who learned how to work through practical experience, have gone into jobs in industries related directly or indirectly to the national defense. Placements are made through cooperation of the State Employment Service. The defense program has been strengthened by this steady flow of workers into industry. In a thousand ways these beneficiaries of America's interest in its youth, are repaying the

expenditure of time and money in the operation of the National Youth Administration.

### Student Work Program

Just as the Out-of-School Work Program of the National Youth Administration has brought new opportunities to thousands of young men and women to whom the doors of industry were closed, the Student Work Program has given other thousands the chance to continue their educational careers. The NYA plan is to give students who need assistance, part-time work for which they are paid wages. Through its operation many young persons have been kept in school when they might otherwise have been forced to relinquish their schooling and enter the labor market as inexperienced workers.

Participating institutions are limited to schools and colleges which are bona fide,

CECIL F. SHALLCROSS, President

T. MAGILL PATTERSON, Secretary

H. A. CARL, Assistant Secretary

1825 - 1941

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tax-exempt, non-profit-making institutions. During the past school year students in 28,000 secondary schools, and 1,700 colleges and universities were employed on the student work program. No more tangible contribution to the welfare of the nation's youth has been made than that of the educators who have given of their time and effort to direct this student work program. Theirs has been the responsibility of administering the program in the local institutions, selecting the students to be employed, planning the work projects to be carried out, and furnishing capable supervision. Payment is made directly to the students by the Federal Government on the basis of pay rolls certified by the educational institutions and verified by the National Youth Administration. Placing the chief responsibility for administration of the student work program on the local school officials, with the National Youth Administration limiting its activities to general policy and assistance in planning, eliminates the possibility of Federal interference with local educational policies or curricula yet maintains the degree of Federal control necessary to insure proper expenditure of funds.

To youth employed on the Student Work Program NYA means more than a way to stay in school. In many cases it has meant an enriching educational experience. Administrators of student work activities constantly strive to see that NYA students have jobs in line with their major fields of interest, thus providing the happy combination of theoretical learning and practical work. The high average scholastic records attained by NYA students demonstrates that the National Youth Administration, through assisting worthy and capable students to remain in school, is acting to prevent a tragic loss of human resources.

While the Student Work Program has not ordinarily been considered as a defense

program, its achievements in the building of morale and in the conservation and development of human resources must be considered as contributions to the strengthening of America. But even more definite contributions may be enumerated. For instance in Pennsylvania State College NYA students this past year were employed in the engineering experimental station which is conducting tests on armor plate for the U. S. Navy, while other students were employed in the repair and calibration of instruments, and worked in various phases of research in Diesel engineering—all jobs which have a direct bearing on the national defense program. In other institutions students in courses related to defense industry have assisted in the youth training plans of the state boards for vocational education.

### Organization of NYA

In carrying out this broad program of work for youth—both in and out of school—it has been the constant aim of the Na-



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tional Youth Administration to meet the problems of youth as they exist. Consequently the administration is greatly decentralized to the end that the major part of the planning of projects shall be done in the local community. The organization is headed by an Administrator who is assisted by a small staff in Washington. A National Advisory Committee containing representatives of youth, education, labor, industry and agriculture, advises the National Youth Administrator on youth problems and NYA policies and activities.

In each of the 48 states, as well as in New York City, the District of Columbia, Alaska, Hawaii, and Puerto Rico, there is a State Youth Administrator who has the major responsibility for directing NYA activities in the area under his jurisdiction. Five regional offices aid in technical and administrative work and serve as a liaison between the central office in Washington and the state offices.

State and local advisory committees, set up on the pattern of the National Advisory Committee with representatives from all groups in the community, assist State Administrators and local supervisors in planning NYA projects and activities. More than 15,000 men and women are serving on these state and local committees without remuneration, lending their assistance in planning and developing projects which provide needed community improvements and services, and which at the same time, provide the work experience that youth need to take advantage of local or nearby employment opportunities.

Set up to meet the problems of unemployed and needy youth, the National Youth Administration has been carrying on its work of aiding the Nation and its youth for more than six years. Instituted as an emergency organization to deal with the ravages of the depression, it has remained to find an important place in the present

defense emergency. Whatever its future may be, its record is indelibly written in the communities it has served and in the lives of youth to whom it has given opportunities and renewed hope.



#### ● DEFENSE ACTIVITIES IN OTHER COLLEGES

*(Continued from page 45)*

military instruction, military theory, organization and administration of civilian defense, military political economy, contemporary military history, military law and the history and theory of weapons. These courses involve the use of much of our athletic plant and equipment as well as the Mill Road Farm, an estate recently given to the University.

The University is also participating in the Civilian Pilot Training Program, offering elementary and advanced training, including ground school instruction on the Quadrangles and flight instruction on a nearby airfield which has been leased for the purpose.

Staff members are serving the government in numerous departments, either in an advisory capacity or on a full-time arrangement. Some members of the staff have thus been lost by resignation, others being continued on leave of absence.

It may be expected that the new instruction and research loads and the loss of faculty and students may radically re-direct the course of the University's future. Some incidental benefits that may yet prove to be considerable are federal subvention of special instruction and research projects and increased student registration in certain areas. It is the feeling of the administration that wherever national defense may lead the University, we must recognize the necessity of responding to its demands as intelligently and completely as we can.

## ● VOCATIONAL IMPLICATIONS OF SELECTIVE SERVICE

(Continued from page 17)

There are more than 500 camp libraries throughout continental United States and the outlying bases. Whenever a troop transport sails, a library goes with it. This fine feature should be developed much more than at present, so that the soldier may have at hand the type of reading which he needs and likes. This will develop an army of men not only powerful in war but capable of meeting the great problems of personal and community life. More of our thought and enterprise should be given to this paramount objective. There is much meaning in an editorial, "Mobilizing Our Minds" which appeared in the *Philadelphia Record* a little while ago. It says in part, "When the Nazis finished mopping up in Crete, no military expert asked the question: 'Where will the democracies strike next?' All asked: 'Where will the Axis strike next?'"

"For the Nazis had the initiative. And they had the initiative because they had a plan, and they had a plan because they put their brains to work.

"Specifically, the Germans put their brains to work through the Geopolitical Institute of Dr. Karl Haushofer (recently reported under arrest for difference with Hitler over policy). The Institute employed more than a thousand scientists, technicians, agents.

"Their job was to know whether it would

rain in Poland before the German campaign there, whether French morale would crack under a "sitzkrieg," whether Norway could be conquered, where substitute materials could be found. And they KNEW the answers.

"We have not yet mobilized our scientific brains, either for war or for the peace that will come some day. \* \* \* We must give the brains of this country the equipment and the money they need. We must draft our brain-power so that the democracies will gain the offensive in the war—and keep the offensive in time of peace."

This is the challenge to America: to make the most of our resources, physical, mental, spiritual. Here is an opportunity to mobilize the strength and ability inherent in democracy so that civilization will move steadily forward. To do this we must make the most of the training possibilities of our present military organization. And beyond that we must see to it that when the young men of the Selective Service Army come back into civilian life they are given places in business and in industry in keeping with their training and ability. We cannot afford to let these trained men tramp the streets as so many did after the first World War. The vocational implications of Selective Service are far-reaching and will be of immeasurable value to the Nation if those who are in positions of influence see to it that every man is given his chance when he lays down his gun and wishes to pick up his hammer or pen.



# EDUCATIONAL GUIDANCE IN THE PRESENT NATIONAL EMERGENCY

## A SYMPOSIUM

R. A. BROTEMARKLE, *Personnel Officer,*

*University of Pennsylvania*

THE complex problem of educational guidance must now be considered in terms of a social configuration of national defense. The changed and changing pattern of the work world demands that greater emphasis be placed upon the social structure of individual training and work. This emphasis is especially urgent in the training of college youth; for while the entire range of age and mode of living is affected by resultant factors, the full impact of inherent limitations centers about the age range and mode of college education.

Since the basic pattern of national defense has long been accepted rather complacently, one is compelled to advise against undue alarm during the sudden expansion of the pattern. The greatest contribution of our colleges may well be the development of a reasonable individual approach to the situation. By the very nature of social change we are forced to a long-range point of view. The greatest confusion will arise if colleges and individual students attempt to determine their educational plans on a temporizing or short-term basis. Any reasonable consideration of our present mode of life forces the conviction that the changed emphasis of defense preparation will delimit the work world of this and even succeeding generations.

This new phase of educational guidance requires that individual students shall seek that work which will enable them to make the greatest contribution to social as well as personal development within this new pattern of national life. Due consideration must likewise be given to additional specialized

training—civilian or military—with its confusing problem of tedious, time-consuming distraction. The adjustment of this element may reflect itself in a more practical emphasis in basic educational training.

Little need be said concerning the techniques and procedures of educational guidance. Now, more than ever, they are in need of improvement and development. To determine individual capacities more accurately, to assist individuals to a better knowledge of themselves and understanding of work patterns, to enrich educational and training practices is an ever present challenge. To enable individual students to face with reasonable assurance the long-range consideration of their capacities and ambitions, and to avoid the confusion of temporary or momentary alteration of plans with any idea of avoiding distraction or extension of training is the challenge of the changing pattern of life.

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E. J. WILEY

*Director of Admissions and Personnel,  
Middlebury College*

A RECRUITING man for chemical industry told me of his experience in visiting one of the large New England Colleges where one of the seniors most highly recommended by the faculty was referred to him and took the initiative immediately by stating bluntly that he was looking for a job with the company that would do the most to keep him out of the war. This somewhat prevalent attitude, when underlying the question of selection of students and guidance with regard to choice of college subjects that may lead to deferment in



the draft, presents the colleges with a delicate problem.

In the last war the colleges were a party to the establishment of the Student Army Training Corps, which enabled many young men with few if any scholarly tendencies to avoid the draft on the assumption that they were being given a combination of academic and military training of value in their country's war effort. In order that the colleges may not again fall into such a trap it is tremendously important that the "essential" fields of study such as science, engineering, or medicine should not be swamped with students who normally would have little interest in them or aptitude for success in these fields.

At Middlebury this fall more attention will be given to testing and counseling members of the entering class. In the face of the terrific pressure of propaganda brought to bear on college men at this time, President Moody has written to members of the upper classes calling their attention to the fact that every thoughtful man is facing both the immediate problem of service to the country in the emergency and the long range question of his education which every right-minded man must weigh and decide for himself. He said frankly that Middlebury does not propose at present to add any courses which will lead by short cuts to commissions in the Army but does plan to strengthen and increase the offerings in the sciences, and he invited an expression of interest in any special defense or pre-military emphasis that it may be possible for Middlebury to offer in such fields, for example, as chemistry, map reading or meteorology.

Though the liberal arts colleges, such as Middlebury, without engineering schools or R. O. T. C. units, are relatively limited in their training facilities for war, wise and honest guidance by faculty members can contribute greatly toward utilizing and safe-

guarding the many values to be obtained from the fundamental liberal arts courses.

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K. H. LANOUEETTE

*Consultant in Aptitude Testing,  
Los Angeles City College*

THE selection of students who might enter "essential" fields of study such as science, engineering, or medicine is indeed a delicate problem. The problem is clear cut but the means of solution are not evident. On the one hand there is undoubtedly a pressing need for the maintenance of an adequately trained reservoir of professional men both for this and the coming generations. There is, on the other hand, the fact that a group of the unfitted will endeavor because of military deferment to enter lines of endeavor for which they are fitted neither personally nor scholastically. There is thus involved first of all the problem of selection.

It would seem that the first procedure in selection might be based upon the student's past performance and present capability. This will vary according to the individual institutions and the individual methods of counseling and guidance. A fairly restrictive program of selection can be achieved by simply utilizing means which we have already at hand. Our scholastic aptitude tests are at present a fair indicator of this particular potentiality. There are certain core elements of necessary training which could be tapped by standard existing tests: mathematics, for instance. No matter what the particular college status of the student wishing to enter these fields, whether he be freshman, sophomore, junior, or senior, he will at least have a historical record of academic accomplishments which are the most significant of all records. One would hesitate to predict whether this individual or that

individual has the personal characteristics of a good doctor or a good engineer, but his past experience of accomplishments would indicate whether he was of the calibre to take general advantage of such training.

It would seem, for a second point, that all our emphasis should not be placed merely upon selection, but that some should be placed on encouragement. Where in the course of our experience we meet students who seem to show particular ability along essential lines, we should as much encourage this person to follow these endeavors as discourage the others.

A third point in the problem is one of the maintenance of proper standards of accomplishment. Once a student has entered on one of these essential fields and so made his choice, he should be followed individually and carefully to see that he is constantly maintaining the standards necessary for successful accomplishment.

Finally, one aspect of the problem which has not yet been thoroughly brought into the open is placement at the end of such training. In the case of the honest student who actually enters into one of these fields of professional study, there should be some assurance that at the end of such training he will have adequate opportunity to follow the line of his choice. It is not quite fair to select or encourage students to enter certain fields if at the end of long and arduous training they will find themselves as that generation of students found themselves in 1929 or 1930.

As a conclusion it might be said that the upshot of the matter must be a very carefully controlled system which will begin with the selection and encouragement of the student and will not end until the accomplished engineer or doctor has found placement to pursue his career. The whole question cannot be dismissed with few words. Some public institutions, for instance, cannot deny

admission to courses to any student who possesses the minimum requirements. Other institutions will find themselves able to apply much more restrictive measures. And it might be that some governmental agency will set up in collaboration with the different educational institutions common practices of selection and guidance.

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GORDON G. SIKES

*Undergraduate Counselor  
Princeton University*

THE problem of selecting students wishing to enter the "essential" fields of study has not yet become acute at Princeton University. In fact the whole problem of advising college men at this time with respect to their chosen fields of study seems to me to be very much the same as it was before the question of military service arose.

However, although the problem is the same, it is undoubtedly more intense. A man's studies may be interrupted, they may be postponed; therefore, he must be very sure of himself and of his desires before embarking upon a career which he may pursue only with considerable difficulty. I refer particularly to the professions such as science, engineering, medicine and law. A man must have a very definite "call" for such studies, just as he must have an overpowering urge to enter the ministry, if he is going to be happy and successful, in the broader sense of the term.

Our problem of selection is simplified at Princeton, for a man does not begin really to specialize until his junior year. This gives us an opportunity in under-class years to consider a student's work in the prerequisite courses which must be taken before entering a specialized field of study. Some departments set a limit on the number of men they will accept so that individual work

may most satisfactorily be developed. For example, almost twice as many Freshmen announce that they are planning to major in Chemical Engineering as may be accommodated. However, during Freshman or Sophomore years many of them learn that they cannot handle the laboratory work, or that their need for financial aid is such that they cannot carry both their program of self-help and the heavy laboratory program demanded by chemistry. Such men obviously should elect another department of study whose daily schedule is more flexible.

Of course, we do not know how the situation will develop in the next year or two, but I feel that the number of students entering the so-called "essential" fields of study will be governed by the interest of the students, not by their desire to qualify for a job granting deferment. Our Department of Chemistry (not Chemical Engineering), for example, has been growing steadily for some years. Applications for this coming year are again large but not to the point where it becomes a serious problem.

## ● COOPERATING WITH NATIONAL DEFENSE

*(Continued from page 44)*

Dr. George W. Taylor, Associate Professor of Industry, is acting as impartial umpire under the labor contract between the General Motors Corporation and the United Automobile Workers of America.

Dr. Robert A. Brotemarkle, Professor of Psychology and personnel officer of the College of the University, is serving as an expert consultant to the Secretary of War on matters pertaining to the personnel classification procedures of the commissioned and enlisted strength of the Army.

Although the foregoing is not an exhaustive review of the contributions being made by the University of Pennsylvania and members of the University family, it illustrates the scope and intensity of the role being played by Pennsylvania, in partnership with other American colleges and universities, to insure the preservation of American institutions and ideals.

## Rising to Success

**T**HE records in our sales department tell a graphic story of the rise to success of many young people in our organization.

**O**NE of the oldest life insurance institutions in the United States, this company has created a personality of strength and friendliness throughout the country, and our representatives enjoy in full measure the necessary counsel, co-operation, and service to make every relationship a definite advantage.

**T**O facilitate the training of young life underwriters, a practical sales course in 11 chapters was recently released to our sales force. Upon completion of that course and of preliminary sales training in the field, newcomers are invited to the Home Office where they receive further instruction from men who themselves have successful sales records, and from officers of the company, all experts in life insurance work.

**Massachusetts Mutual Life Insurance Company**

Springfield, Massachusetts

Bertrand J. Perry, President

## ● THE NEED FOR COLLEGIATE INSTRUCTION IN INSURANCE

*(Continued from page 21)*

savings fund will have reached the full face value of the policy.

(3) It bears a vital relation to the creation of a personal estate through sound investment, and is unsurpassed in this respect by any other institution or method. The \$30,000,000,000 investment portfolio of American life insurance companies passed through our recent memorable industrial depression with scarcely any loss to policyholders. The average annual loss during the depression, as compared with promises made, did not exceed one-half of one per cent of the total portfolio. As I am accustomed to say: "The twenty attributes of the life insurance investment to policyholders are the twenty attributes of a good sound investment." Among these attributes the most important are safety of principal, high rate of return measured in terms of absolute safety, regularity and stability of income, avoidance of managerial care, non-fluctuation in value, protection against claims of creditors, ready marketability at par, suitability for quick borrowing, favorable taxation treatment, adequate publicity, and convenience of the installment plan of accumulation.

(4) It serves family heads, and small or medium sized businesses, as no other method can, in the creation of dependable sinking and emergency funds to meet future family and business obligations dependent for their fulfilment upon the continuance of the life of the family head or business man.

(5) It serves the purpose of property insurance in protecting the policyholder's property estate (non-life-insurance estate) against the heavy shrinkages occasioned by last illness and funeral expenses, by post mortem taxation requirements, by estate

settlement costs, and by other social and governmental demands at the time of the death of the owner of an estate. Life insurance reimburses these heavy shrinkages, now amounting to one-third of the average estate at the time of the owner's death, and may thus be used to keep the family or business estate intact.

(6) It is highly serviceable in many ways to the prompt, convenient, and inexpensive settlement of the estate in the interest of heirs; to the prompt and sure liquidation of sole proprietorships, partnership interests, and stock holdings in close corporations, in the interest of both heirs and surviving partners or stockholders; and to the conservation of estates after death, or at retirement, through life income plans or life insurance trusts.

(7) When properly issued, and when the life value has been adequately appraised, life insurance really constitutes a life will and testament, bequeathing to heirs the money value of life, just as under our property will we bequeath to those same heirs our material property possessions. The policyholder is the testator, and the so-called "beneficiaries" are really the heirs.

(8) Upon retirement from active work, annuity arrangements of many kinds provide for the safe liquidation of existing savings funds, and on the basis of an assured income as long as life may last. The annual or monthly return is large, consisting of current earnings on the fund, plus a part of the principal itself. Insurance serves to create the fund, and annuities then liquidate the fund on the basis of a dependable mortality table. Joint life and last survivorship annuities may extend the arrangement to two or more lives, and may thus be used jointly by brothers and sisters, or by husbands and wives without children. But even where there are children, it seems fair that the parents should use a part of their life sav-



ings fund for annuity purposes, so as to enlarge their old age income.

(9) In the field of philanthropy, bequest life insurance is coming rapidly to the fore. Wealthy benefactors are almost disappearing, and eleemosynary institutions of all kinds must increasingly depend for support upon the great middle class. Here life insurance makes substantial bequests possible out of earned income—the one or two per cent annually — and thus leads to a sizeable bequest without depletion of any existing capital.

*Employee Insurance and Social Security Plans.*—Aside from the aforementioned specific services of life insurance, we must not overlook the important kinds of life insurance plans designed especially for the protection of labor and the low income groups of the community. Everywhere business firms and other concerns are introducing far-reaching group life insurance systems, as well as pension plans, for their working forces. The same group plan is also being extended to accident and health insurance, to total and permanent disability protection, and to hospitalization. Moreover, many business concerns are introducing so-called “salary savings plans” of life insurance. Everywhere unemployment insurance is also being discussed.

Social security, too, is coming rapidly to the fore, and the widespread public interest in this subject has no doubt been responsible for the starting of 37 social insurance courses in various American universities and colleges, with a combined class enrollment, at the time of the McCahan-Kelly survey, of 1,083. Adoption by the federal government of a comprehensive system of social security (in 1935) for the protection of the aged, and for certain other unfortunate groups of dependents, has greatly stimulated public thinking in the field of insurance. This governmental plan is already so comprehensive

that it would require, if actuarially based, a reserve fund accumulation of between 45 and 50 billions of dollars. All of the aforementioned group plans, private and governmental, are studies in themselves, requiring much thought for a judicious understanding and a wise use.

*Services of Property and Casualty Insurance.*—These branches of insurance include many types of protection, such as fire, marine, inland marine, corporate bonding, title, automobile, workmen's compensation, public liability, accident and health, credit, windstorm, burglary and theft, explosion, etc. With the exception of accident and health insurance, all of these types of insurance are essentially designed to protect the policyholder's property estate. Their essential purposes are (1) to indemnify loss actually incurred, and (2) to avoid losses altogether through loss prevention methods. Through these services these forms of insurance do much to safeguard property owners and to bolster our entire credit system.

Again, many subjects present themselves for study by policyholders and field representatives. Among these might be mentioned (1) the proper arrangement of the “indemnity,” (2) the need for coinsurance, (3) the serviceability of special endorsements to meet varying needs, (4) the advantages or disadvantages associated with the operation of various types of companies and plans of insurance, (5) self-insurance and the conditions necessary to make it feasible, (6) evaluation of risks and the process of rate-making, (7) the serviceability of reinsurance and the operation of reinsurance plans, (8) the use of all-risk policies designed to cover many hazards applicable to the same risk, and (9) the advantages of use and occupancy insurance, or business interruption insurance as it is often called. Each of these subjects, and the list could be materially lengthened, is in itself a special subject for extended



study, and needs to be fully understood if there is to be an adequate insurance service.

*Prevention of Loss Activities.*—All types of insurance — whether life, property, or casualty — also emphasize ever-increasingly the elimination of loss in the first instance through preventive methods. Loss prevention in the first instance is the greatest insurance of all. As Benjamin Franklin, that great disciple of sound insurance, so aptly stated: "An ounce of prevention is worth a pound of cure." In fact, the service is more important to the community than the purely "indemnity" function of insurance. The constant effort of insurance companies should be to reduce the necessity for indemnity to the irreducible minimum. Cash payment for an actual loss is never a complete solution, since there will always remain a loss of time and much inconvenience. It is much better to avoid loss requiring indemnification. Such a practice is decidedly beneficial to the individual, as well as to society. By reducing unnecessary waste, the cost of insurance will also materially decline.

Although usually considered in regular collegiate insurance courses, the subject of loss prevention is so all-important that a number of large universities have seen fit to install a special course on this phase of the insurance business. Fire and marine insurance companies spend huge sums annually to improve the loss hazard of insured properties, and their field representatives should be qualified to advise clients how best to avoid the possibility of loss. In many forms of casualty insurance, elimination of loss has become the primary function. Life insurers are likewise rapidly developing this service, through periodic health examinations and otherwise, in the interest of improved health and increased longevity of the insured working life. Insurance companies are peculiarly fitted, by virtue of their self-interest, their equipment for periodic inspections, and their

facilities for a study of the problem and the dissemination of information, to emphasize worthy efforts along loss prevention lines.

#### **Need for Specialized Courses in Insurance for Those Preparing for a Life Career**

A calling so serviceable to mankind as insurance certainly affords abundant opportunity for a life career to college-trained men and women. In fact, the business has reached such huge dimensions, and presents so many lines of endeavor requiring a special training of a high order, that there are as many college students today who are thinking of entering this field as there are with respect to banking, transportation, marketing, accounting, and other subjects departmentally represented in our collegiate schools of business. There is, therefore, just as much need for specialized training in insurance as in those other fields. The rapid growth of courses designed for specialization, as already indicated, is due to a realization of the existing need.

Most departments of an insurance company — like the executive, actuarial, legal, investment, and medical departments—have long been thoroughly organized with respect to educational and personnel requirements. But sight should not be lost of the vast underwriting field force, which should be similarly organized because of its strategic importance in all branches of insurance. Judging from my own experience, the greatest demand for college graduates, as regards number, lies in this particular division, although the other departments should not be minimized. The large underwriting and managerial field force contacts the buying public, spreads the services of insurance to the millions of homes and business establishments, and advises and acquires the business upon which nearly all else depends in insurance Home Offices. In fact, the public knows

and looks upon insurance essentially as it knows and looks upon the field representatives of insurance. During my 37 years of insurance teaching, I have become increasingly convinced (1) that insurance underwriting is a profession, and should be organized and practiced as such, and (2) that good underwriting in the field, if there is to be efficient service to American homes and businesses, involves on the part of the individual underwriter an understanding of a large and complicated fund of knowledge.

Clearly the well-equipped field underwriter needs to know more than the principles, practices, and economics, and a technique of the selling of insurance per se, be the form of insurance life, fire, casualty, marine, or bonding. In life insurance, to be a real adviser, arranging his client's financial program for the future, the field underwriter needs to have a thorough mastery of the business subjects closely allied with the life insurance service, namely, economics; government; sociology; business and insurance law; wills, trusts and estates; taxation; money and credit; corporation finance; and investments. And in the instruction all of these subjects must be properly correlated to the needs of the life insurance practitioner. From its inception, the American College of Life Underwriters has had as one of its declared objectives: "The establishment of an educational standard for the profession of life underwriting which will comprise (1) all the general fields of knowledge with which an underwriter should be acquainted in order to understand life insurance as a functioning institution in a world filled with economic, social, and political problems which it can help to solve, and (b) all the specific fields of knowledge essential to the rendering of expert advice and service to the insuring public."

In the fields of property and casualty

insurance, there is a similar need for an understanding of the corps of closely allied subjects, such as, economics, government, business and insurance law, prevention of loss activities, accounting, banking and credit, corporation finance, and investments. A Committee on Curriculum and Educational Procedure has already been appointed under the auspices of the national organizations representing property and casualty insurance, to consider the formulation of a four-year study program with respect, on the one hand, to the special text material relating respectively to fire insurance, casualty insurance, marine insurance, and suretyship and bonding, and, on the other hand, to the required corps of allied courses of study vital and common to all of these branches of insurance. Moreover, whatever the particular branch of insurance specialization, it is highly desirable that the practitioner should be acquainted with the principles, practices, and economic uses of the other types of insurance.

Besides giving an opportunity to those who wish to prepare for a career, specialized courses in insurance will tend to bring about five other desirable results. Briefly stated, they are:

(1) Employers in insurance will be enabled increasingly to secure their manpower directly from university and college graduates, and preferably from those who have specialized in insurance, instead of selecting so largely on a hit or miss basis from those who have endeavored to qualify in something else and are induced to make a change. Insurance, like other professions, should do its share in selecting and developing in the first instance its own new manpower. There should be an increasing emphasis on the part of insurance employers to select graduates who have specialized in either life or property and casualty insurance, or who have had at least a good

survey course, rather than the more or less indiscriminate selection of college graduates in general who happen to have no acquaintance with insurance, relying on the belief that they can pursue their insurance studies following the date of employment. The latter policy is apt to produce a turnover similar to that experienced under the old plan of recruiting from those already engaged in some other calling; it is apt to furnish misfits and leftovers.

My own experience shows that nearly all students who specialize in insurance with a view to preparing for a career actually enter the calling, and the turnover in later life is conspicuously small. That, at least, is the experience at the University of Pennsylvania. Moreover, general agents and managers will come to realize that they can not be expected to conduct the higher education of their personnel in insurance fundamentals and in all of its allied branches of learning. Other professions do not undertake that sort of thing. Instead we have our universities and colleges for that special purpose, with their large existing capital and their teaching faculties to serve the insurance underwriting profession in the same way that they are serving other well-known professions.

(2) Placement service officials of universities and colleges will become increasingly conscious of the opportunities afforded to place graduates in well-paying and career-making positions. Placing of graduates wisely has always been a trying task, and here a large new field, of a lasting and growing character, presents itself.

The insurance business should cooperate actively with the employment divisions of our universities and colleges. Such employment divisions for the intelligent placing of graduates are being organized increasingly, and cooperation from insurance employers will be appreciated and responded to. But

in this connection, as I have pointed out previously: "The selection of personnel, in so far as possible, should be early in the course of the student, preferably at the end of the Sophomore year, so that the following two years may include instruction along lines best adapted to a future career in insurance. It should be based on standards and tests relating to educational attainments, personality and aptitude, and an apparent ability to absorb the strictly technical vocational training. Such a plan would give the student an objective to look forward to. Every effort should be made by insurance employers to create an intimate and close working contact with collegiate placement officials."

(3) The rapidly growing number of specialized insurance courses (and to some extent of general lay courses, also) has brought about a realization of the need for well-trained, full-time teachers of insurance. There are today approximately 300 teachers in American universities and colleges engaged in insurance instruction, who are giving their entire time to educational work. But it still happens that many of these teachers straddle the teaching of insurance and the teaching of some other subject.

There is today a dearth of competent teachers of insurance, equipped especially to handle the specialized courses. Often an institution of learning has made the finding of a competent teacher the condition of its willingness to start a program of insurance instruction in cooperation with the American College of Life Underwriters. The problem is recognized by the life insurance business. Only recently a Foundation was created by the companies, furnishing a total of \$125,000 over a five-year period, for the giving of scholarships and fellowships, together with certain other aids, to graduate students who have declared their intention to engage in the teaching of insurance, and

who desire to prepare for that calling. Such a plan represents a direct tackling of a pressing problem, and bids fair before long to produce excellent results.

(4) As the number of full-time teachers increases, and interest in advanced undergraduate as well as graduate work in insurance correspondingly grows, there will follow much greater activity in original research. Research is of vital significance to any profession or business. In the last analysis, research is the generating force that pushes any calling into the realm of new undertakings. Identification of insurance with our higher institutions of learning will greatly stimulate research activities. There are literally hundreds of important phases of insurance which need careful inquiry by researchers trained and qualified for the task.

(5) General survey courses in insurance for the lay student, which will be discussed in the next section, have often been the outgrowth of the specialized courses designed for those who intend to follow insurance as a calling. No doubt specialized courses, more limited in attendance, often make educators conscious of the value of insurance as a subject of fundamental instruction to the larger student body. That was my own personal experience with the faculty with which I am connected. Very often faculties need to be won over before approval of a new basic general course can be secured.

#### **Need for General Survey Courses for the Lay Student**

While specialized education is vital to insurance underwriting and management, sight must not be lost of the importance of general insurance instruction for the layman in the form of well-organized survey courses covering the basic principles, fundamental practices, and economic usefulness.

From its beginning in 1927, the American College of Life Underwriters has had the following as one of its declared objectives: "To cooperate with universities and colleges in general life insurance education for laymen, since the subject is regarded as fundamentally important and well worthy of incorporation into a business school's curriculum." The same objective, I am confident, will also be uppermost in mind with the proposed American College of Property and Casualty Underwriting, already approved in principle by the six leading national organizations representing the property and casualty branches of insurance.

This objective is all-important. A calling so serviceable and so fundamentally necessary to every family and to every business and professional man as insurance is, should be a part of the education of every college graduate, irrespective of whether or not he intends to enter the business. As I had occasion to write many years ago: "Organized insurance instruction is just as vital to social well-being as the other basic courses in a business school's curriculum. As a collegiate subject, the study of insurance combines the virtues of mental discipline, a proper sense of the seriousness of life, a proper concept of community service, and information really useful in living, quite as much as other subjects now included in the curriculum, as a required phase of instruction, and in some instances much more so." That this viewpoint is making great headway is indicated by the large number of survey courses (already referred to) in the principles and services of insurance, adapted essentially to students who do not contemplate entering the field of insurance.

The potential value of such general survey courses can not be overemphasized. They have an outstanding utility value to the future personal and family welfare of every college graduate. They are also service-



able in arousing interest on the part of students who have not yet selected a future life work, and who, in the absence of such a course, never receive an introduction to this important subject. My own experience is that annually about twenty to thirty students make up their minds, as a result of such course at the University of Pennsylvania, that they wish to adopt insurance as their subject of specialization, with a view to entering the calling. Such courses also help to enlarge the army of insurance teachers needed in high schools, and in the educational organizations of insurance companies. Moreover, sight must not be lost of the wholesome effect of such courses upon the thought of the community. To quote a previous statement: "The thousands of graduates leaving our universities and colleges each year, having had such a course, will go back to their respective communities to take their places as leaders in business, teaching, with the press, in the church, with civic and social organizations, in legislative bodies, etc. They will go as friends of insurance along sound lines, promoting its cause and spreading its beneficent influence far and wide to family, business, the professions, and to social institutions."

In this connection another thought presents itself, namely, the desirability of introducing the subject of insurance—its basic principles and practices—into the Senior year of our high schools, on a purely non-commercial basis. Only about one in ten of high school graduates goes further in his organized educational program, and about nine enter at once into the destiny of family and business life. How important, therefore, this step would be to the welfare of our people. I believe that a sound life value philosophy with respect to the organization, management, and protection of our life values, as well as the proper protection of our property and employee interests, can

be made an integral part of the thinking of our whole population—yes, ingrained in the mind of the average man—through the process of organized insurance education in our higher institutions of learning, as well as in the thousands upon thousands of our high schools, just as that process of education is causing our people increasingly to accept certain other elemental services in the spirit of plain common sense and duty. In any particular field of learning, education usually percolates from the top (universities and colleges) downward to the high school system. Hence the introduction of general survey courses in insurance in universities and colleges gives hope that insurance will also increasingly be reflected in our high school system.

### The Professional Concept

All students specializing in insurance, with a view to making it their life work, will find it highly desirable to keep in mind throughout the course the professional nature of insurance underwriting. All types of insurance—life, property, and casualty—are inherently professional from every vital standpoint. They meet the important elements of the professional concept, i.e., (1) they are inherently noble and absolutely necessary to the general welfare of the community, (2) involve a utility to clients which reflects an obligation to serve efficiently and unselfishly, (3) comprise a science of substantial learning, involving a very considerable education and experience, and requiring expertness in daily practice, and (4) represent a service of such character as to require of their practitioners emphasis upon a high "code of ethics and practice." Student advisers and university placement officials should be sure to stress these concepts, and to encourage the student to organize his study course so as to meet all



requirements of the existing professional program.

*The American College of Life Underwriters.*—Recognizing the aforementioned concepts as vital to sound career building life insurance established the American College of Life Underwriters. As far as I know, this organization is the first and only comprehensive attempt, on a uniform national scale, to do for life insurance exactly what has been accomplished professionally in accounting and other leading callings involving a large fund of learning. It represents a complete set-up along correct lines professionally, carefully thought out by leaders of the life insurance business, as well as by insurance educators, over a twenty-year period. It is sponsored by the National Association of Life Underwriters, as well as by life insurance companies representing 95% of all life insurance written in the United States.

The College sponsors a prescribed four-year course of study, including the allied business subjects previously referred to. College graduates, following their graduation, are entitled to take the Chartered Life Underwriter (C.L.U.) examinations. When these examinations are passed, and upon the completion of three years of satisfactory life insurance experience, the candidate is awarded the so-called Chartered Life Underwriter (C.L.U.) designation.

Aside from cooperation with universities and colleges, the setting up of educational standards, the administration of examinations, and the award of the designation, the College also performs certain other services, a few of which may be stated briefly as follows:

(1) Promulgation of its entire program of instruction through higher institutions of learning, and the giving of educational assistance to all institutions asking for the same. This has been one of the outstanding

services of the College, and has met with extraordinary success. The service has included the finding of teachers of insurance and the preparation of a comprehensive teachers' manual.

(2) Preparation of text books through various channels, and under its own auspices the preparation and issue of study supplements, problem material, and promotional literature. It should be noted that the actual work of instruction is left, as far as possible, to existing institutions of learning, just as is the case in Accounting, for the C.P.A. designation.

(3) Emphasis, as an underlying policy, upon the following:

(a) The setting up of specific qualifying standards "so clearly on a parity with the standards now associated with recognized professions that the public will accord the same type of recognition to those who fully meet them."

(b) The inculcating of a proper career-building attitude along sound lines.

(c) The stressing of the social point of view in the interest of clients, as well as the institution of insurance.

(d) The stressing of ethical standards on the part of candidates in their relations with clients, employers, and fellow practitioners.

(4) The furnishing of a comprehensive program of study which gives to the commendably ambitious man or woman an ideal for which to strive.

(5) The furnishing of a plan of preparation which is distinctly a good public relations program in that it increases the confidence of the buying public in the practitioners of the calling.

(6) The furthering of other big movements vital to the business. Thus the American College of Life Underwriters has had a profound effect upon the basis of selection of new personnel. It is favorably affecting the progress of intermediate insurance edu-

cation, until today the life insurance business is considering the formulation, on a national scale, of an intermediate plan of insurance education designed to be a feeder to the C.L.U. program. It has also done much to change favorably the outlook of employers towards the training and future welfare of their employees.

(7) The emphasizing of *underwriting* as contrasted with the mere act of selling. More and more the emphasis should be on the *knowledge of subject matter* in the profession, and more and more, because of careful selection, the act of selling should be largely presumed. It is also my hope that new and carefully selected appointees may be given, as is the case in other professions, the benefits of a one-year internship, with reasonably assured compensation, as well as constant guidance along sound career-building lines. Life insurance, and the same is also true of other types of insurance, need not necessarily be sold as it has been. As I have said elsewhere: "The salesman per se need not remain so necessarily; but the need for the underwriter will be ever greater. And in his work of underwriting—arranging the insurance program to meet real needs—he will have a much greater cooperation from a more intelligent (insurance-wise) public. *Underwriting*—emphasis on the knowledge of subject matter in insurance—will more and more supersede the mere act of *selling*."

The remarkable growth of the C.L.U. movement indicates not only the success of the American College of Life Underwriters, but is also evidence of a realization, by leaders in the business, of the advantages and services claimed for the plan. Since its inception in 1927, nearly 1,900 have already qualified as Chartered Life Underwriters. At the close of this year's examinations, 2,057 will have completed all of the five C.L.U. examinations, although some must

still complete their three-year experience requirement to receive the award. Moreover, 3,043 additional candidates have credit for one or more of the examinations. In other words, 5,100 candidates have completed all or a part of the examinations. The total number of applicants approved to date to take the examinations is 6,720. Judging from correspondence, it also appears that at least another 4,000 have undertaken the course of study. Some of these probably never contemplate taking the examinations, yet obtain much good from the course of study. This year, 1,616 candidates took 2,524 examinations at 90 degree-conferring universities and colleges serving as examination centers for the American College of Life Underwriters. These candidates were associated with 89 different companies, and represented 330 cities and towns, in 44 states, the District of Columbia, and Hawaii. Preparation for this year's examinations was undertaken through the medium of 157 study groups, 56 of which were under the auspices of universities and colleges, and the balance under the auspices of life underwriters' associations, local C.L.U. chapters, Home Offices, and life insurance agencies. Of the combined enrollment of 2,159 in all of these groups, nearly one-half was in groups conducted under the auspices of higher institutions of learning.

The number of cooperating universities and colleges is also growing remarkably. In 1929, 12 institutions of higher learning had signified their intention to give all or substantially all of the courses comprised within the C.L.U. program. Since that time, 69 additional universities and colleges have been added to the list, making a total of 81 at present. It may be stated that company cooperation is also very gratifying. Ninety-nine life insurance companies, representing 95% of all outstanding life insurance, contribute annually \$33,000 to the support of

the College. Under this plan of contribution, all of these companies pay one-half of the registration and examination fees of their candidates. Thirty-seven of the companies, however, repay all of the examination fees to their candidates.

*The Proposed American College of Property and Casualty Underwriters.*—The leaven of the C.L.U. movement is extending to the other branches of insurance, namely, property insurance and casualty insurance. These two divisions constitute, with life insurance, the triumvirate which makes up the whole institution of insurance. What is good for life insurance with respect to cooperation with universities and colleges, and in the interest of good public relations, is also good for property and casualty insurance.

These latter two divisions of insurance have been watching the progress of the C.L.U. movement. On May 16 last, at the invitation of the Committee on Professional Standards in Property and Casualty Insurance of the American Association of University Teachers of Insurance, duly appointed committees of six outstanding national property and casualty insurance organizations—namely, the National Board of Fire Underwriters, the American Mutual Alliance, the Association of Casualty and Surety Executives, the National Association of Insurance Agents, the National Association of Mutual Insurance Agents, and the National Association of Insurance Brokers—met jointly to consider the advisability of adopting a professional program of education, comparable in extent and objectives to the Chartered Life Underwriter plan. The Committee recommended the establishment of an "American College of Property and Casualty Underwriters," with two designations, namely, Chartered Property Underwriter (C.P.U.) and Chartered Casualty Underwriter (C.C.U.). The Committee's

recommendation was approved in principle unanimously, and instructions were given for the appointment of four sub-committees, namely, an Advisory Committee, and three additional committees dealing respectively with legal phases, finances, and curriculum and educational procedure. These committees are now at work, ironing out the details, for presentation of a perfected plan as soon as possible.



## ● "THIS SOUTH WIND

### BLOWING SOFTLY"

(Continued from page 11)

No matter how charged with punishment the scroll, let us look ahead to the days before us as an adventure—which is what they are going to be, whether we like it or not. Let us continue to enjoy life the best we can and keep merry hearts within us and cultivate the habit of laughter. For the spirit of good-will and laughter, whatever the difficulties, can only add to the strength of the strong and lend fresh courage to the weak.

And so, members of the graduating class, the Class of 1941, I wish to congratulate each of you upon the successful completion of your work here at Rutgers and to wish you every success and every happiness in these years which lie ahead. You are realists and you know that they will not be easy years. You will have both the thrill of great opportunity and the discouragement which comes from great difficulties. In Kipling's words, may I express the hope that you will "Meet with Triumph and Disaster and treat those two imposters just the same." Wherever you go and whatever you do, remember that we, your friends here on the campus, in spirit will be with you, wishing you well.

# ● THE RED CROSS NURSES' TRAINING CAMP AT BRYN MAWR COLLEGE

(Continued from page 24)

emergency continues to warrant such an effort.

## Courses Provided

The courses provided for this summer include Introduction to Nursing (elementary principles and practice, bandaging, hospital economics, individual health, nutrition and materia medica); Biological and Physical Sciences (anatomy and physiology, chemistry, microbiology); and Social Sciences (community health, professional adjustment and social significance of nursing). Laboratory work is also given. For nutrition laboratory work the students go to Drexel Institute in Philadelphia. Nursing procedures are first practised under supervision in the demonstration room at Bryn Mawr, after which the students give care to patients in local hospitals. Field observation has been arranged in various clinics and welfare agencies. The community resources of Philadelphia offer rich educational opportunities which are of great value in such an intensive program.

## Importance to Defense

The reasons behind the formation of this Training Camp include not only its establishment as a beginning towards filling the rapidly increasing need for nurses, but also to interest young college women in a profession which has greatly increased its scope in recent years. The nurse today has opportunities far beyond the need the people have for her services in homes and hospitals. Public health and emergency nursing of all kinds, including positions with Life Insurance Companies and other public organizations, and school and industrial nursing offer her tremendously interesting and valuable fields to choose from. These positions demand as much intelligence and preparation as can be obtained. The Bryn Mawr School has been formed with the hope that

it might direct the attention of many more people to the nursing profession than could actually attend the school. Already several hundred inquiries have been received from students who could not attend this summer. Every effort will be made to put those who made these inquiries into contact with the best schools of nursing in their vicinity, and a scholarship fund is being established to help those who could not otherwise join the ranks of the profession.

If the defense program continues, the work done so far will only be a very small percentage of what is needed. The Army and Navy are rapidly expanding their nursing corps, and will do so to a still greater extent. It is, therefore, more than probable that efforts to increase the enrollment of nurses and to obtain the best material in the country will continue to be made. It is the hope of those in charge of the School in Bryn Mawr that they may have done something which will contribute towards the maintenance in time of emergency of the high standards already set by the nursing profession.



# ● PROBLEMS IN MEDICAL EDUCATION CREATED BY THE SELECTIVE SERVICE ACT

(Continued from page 23)

First Lieutenants in the Medical Corps Reserve and this removes them from the jurisdiction of the Draft Boards. We are not certain how long the Surgeon General's Office will allow these men who are commissioned to serve as internes. Undoubtedly these men will be allowed to spend at least one year and perhaps longer.

It is worthwhile adding that Dental and Veterinary students are also being deferred by similar methods and for similar reasons. The authorities properly decided that a continuing supply of well trained dentists and Doctors of Veterinary Medicine was also essential to the welfare of the Nation.



## ● ENGINEERING AND SCIENCE PHASES

(Continued from page 40)

### The Function of the Regional Adviser

Because the need for training men for defense could be more intelligently ascertained by persons close to specific industrial needs, twenty-two regional advisers were appointed. Mr. Willis T. Spivey, Director of the Evening School, Drexel Institute of Technology, is Regional Adviser for Region No. 6. The Regional Adviser's office performs in the main three primary functions, namely:

- (1) To cooperate with others in determining the educational needs of local defense industries.
- (2) To advise with the colleges on ways and means of meeting local technical training needs.
- (3) To study the general problem of up-grading men in their knowledge of technical subjects which might be useful in the defense effort.

In September, 1940, Mr. Spivey made a preliminary survey of the educational needs of defense industries in his area, and since that time has kept in constant contact with the executives of these industries. Counsel and suggestions have been obtained from key men in these defense firms, in connection with courses that should be offered and the general content of these courses. These suggestions have been discussed with the defense committees of the colleges, who then have contacted the firms and worked out with them the details of courses and content.

Many original suggestions for courses have come from the colleges in this and other regions. The point here emphasized is that a serious effort has been made to offer such

courses as would be of direct benefit to men employed in defense plants.

### Three Kinds of Classes

As a result of the study of the present needs of industry and of probable future needs of our defense efforts, three types of courses were offered last year and are being continued this year.

The *first* consists of classes organized by the colleges in and for the larger defense industries. These classes are offered with the direct counsel and advice of plant executives, and the students consist of men employed in these firms. The classes are held in the plant after working hours or in some convenient building near the plant.

The *second* type of class is the "open" class. Enrollment in these classes is open to interested and qualified men of three kinds: (1) men who are not employed, (2) men who are employed by the firms mentioned above but do not find a course offered in the plant that they desire to take, (3) men qualified for college study who are employed elsewhere.

Information about these classes is sent to a large number of defense firms, both large and small. The following are typical open courses: machine design, jig and fixture design, plastics, chemical plant design and operation, petroleum refinery control, metallurgy and heat treatment, radio and electronics, design and operation of radio equipment, electric power design, internal combustion and Diesel engines, pipe stress analysis and lay-out, naval architecture, hull structural engineering, marine electrical engineering, materials inspection and testing, chemical inspection and testing.

Application to these open classes may be made by any interested and qualified person. Because it has been our desire to remain more or less close to the principle of



selective enrollment in these classes and because, for the present at least, applications have been coming in about as fast as the colleges could set up the classes, no broadcast publicity has been used in announcing these classes.

A few of these open classes are held in the college buildings but they are held, for the most part, in high school classrooms near the homes of the students.

The *third* leg of the Region No. 6 plan consists of elementary courses in engineering for recent high school graduates. It was realized that in the long-time defense effort a continued and increasing need would obtain for men with technical knowledge. A large number of capable young men are regularly enrolled in the colleges; no substitute for this kind of broad and thorough knowledge can be found. However, a number of young men who are capable of doing college work and who have aptitudes or technical pursuits find it impossible, for one reason or another, to enroll in our regular colleges. Chief among these are lack of funds and the necessity for assisting in earning a living for the family.

In order to facilitate the selection of these young men, and to lessen the possibility of an influx of boys enamored by the prospect of becoming "engineers," the cooperation of high school principals and counsellors in the area was obtained. The high schools were asked for a list of the names of the graduates of the past three or four years who are not in college and who do not contemplate going to college, as follows: (1) boys who have graduated from the College Preparatory course with at least  $2\frac{1}{2}$  years of mathematics and one year of chemistry or physics; (2) boys who fall short of the credit requirement set forth above, but are judged by the principal and counsellor to be qualified, by virtue of superior aptitudes and

abilities, for successfully carrying college engineering work.

The persons listed were given opportunity to apply for admission to evening classes in elementary engineering. The work for these young men includes mathematics, drawing, and mechanical principles. Several colleges conducted classes for several hundred of these persons. A recent report from one of these colleges advises that 98% of the young men completing last year's course have indicated their desire to continue with more advanced work next year. Most of these young men were employed and attended classes three or four evenings a week from January until June or July.

New beginning classes are now being organized for the 1941 graduates. In addition to these evening classes, about three hundred 1941 high school graduates took a full-time in elementary engineering training during the summer under a cooperative plan worked out by the defense committees of Drexel Institute of Technology and the University of Pennsylvania. These boys and those who completed the evening classes as outlined above, are now given opportunity to continue more advanced engineering work, including descriptive geometry, elementary design, and mechanics.

It is to be noted that the young men enrolled in these elementary classes in engineering constitute a selected reservoir of intelligent persons of sound educational foundations. Some of these young men are employed in defense industries, but many of them are more or less marking time after high school graduation working in soda fountains, filling stations, as errand boys, etc. Certainly this training will make them valuable to defense industries if they are needed.

#### Admission Qualifications

In all three of the kinds of courses offered

the basic requirement for enrollment is high school graduation. A college passes upon the qualifications of each man applying for its courses and may, at its own discretion, judge certain types of experience to be a substitute for some high school work. Much of the work mentioned above covers material of a highly technical nature for highly trained engineers. This is particularly true of courses offered in the plants.

The above has been written with the engineering and science phases of the program primarily in mind. Dr. Victor Karabasz discusses elsewhere in this issue the work in management and supervision.



#### ● WHAT THE ASSOCIATION CAN MEAN TO HIGH SCHOOLS THROUGHOUT THE COUNTRY

*(Continued from page 28)*

side these larger centers to develop and encourage the adoption of cooperative policies within their community areas.

4. Interest of national, state, and local volunteer teacher organizations to be aroused so as to have working departments or sections devoted to improved placement programs.
5. Programs and topics for the conventions of these associations to be suggested, with names of competent speakers.

There is a great opportunity before this Association. Much material is available for its use. By integrating what has already been and is being done, and by developing it into useful programs, a great service might be rendered. By the provision of some such leadership, the high schools throughout the country would be greatly aided in meeting their guidance and placement responsibilities.

#### ● OPPORTUNITIES FOR WOMEN

##### IN BUSINESS

*(Continued from page 33)*

your chance of advancement will be nil and the probability of holding your job doubtful. To get a job you must convince someone that at least you are worth a trial; to keep a job you must be not less good than your fellow workers; to advance you must demonstrate by your performance that you are better than they.

It is a fact that the pioneering phase of the establishment of women in business has passed. It is equally true that something of the pioneer spirit is still required of the woman who would make, not merely a living, but a career in business. For the young woman in quest of her first job there are numerous opportunities already pioneered by multitudes of her sisters. There are many business fields which are now well recognized as peculiarly the fields of women. The obstacles which the young woman who would enter them faces do not arise from her sex. The requirements for entrance are not so exacting as to discourage or defeat any woman possessed of average health, intelligence, stability and industry.

**Student earnings through the Student Laundry Agencies of the University of Pennsylvania last year exceeded**

**\$1000**



**QUAKER CITY LAUNDRY**

**Dry Cleaning GRAnite 1121 Fur Storage**

## ● THE MANAGEMENT PHASE

*(Continued from page 41)*

A brief background of the Engineering Defense Training program has been presented because it was as a part of this program that those courses in management closely allied to engineering were given and it therefore represents the first step in the direction of organized management training for National Defense. The management courses which were given were all classified under Industrial Engineering and represented a total authorized enrollment of 23,787 students out of a total of authorized enrollment of 137,657 in all Engineering Defense Training Courses.

### Extension of Program Under Present Law

Because of the general favorable reaction to the Engineering Defense Training Program and because the need had become greater and broader, Congress on July 1, 1941, appropriated \$17,500,000 for an extension of the original program and for an expansion of the program to include courses in engineering, chemistry, physics and production supervision. The term production supervision is to be interpreted broadly and will no doubt include courses in accounting, personnel management, purchasing, factory stores control, and similar courses which could not be included as engineering under the original program.

The expansion of the program meant that in addition to engineering schools other institutions of higher learning having satisfactory facilities and personnel and giving courses provided for in the Act are now eligible to participate in the program, provided their educational property is tax exempt.

The name of the program has been changed from "Engineering Defense Training," to "Engineering, Science, and Man-

agement Defense Training," which is more descriptive of the new program. Additional members have been added to the Advisory Committee to represent the new fields to which the program has been expanded.

### Basis of Program

The program has as its fundamental principle the giving of courses provided for in the Act to meet an actual or anticipated need of defense industries. The program is primarily a training program to provide specific training which is immediately useable, and not broad general training of a general educational character. Another characteristic of the program is that courses must be intensive and be given for a relatively large number of hours per week over a short period rather than a few hours per week over a long period of time. The program of any institution may involve pre-employment or in-service training or it may be a combination of both. In all cases the training given must be of college grade, that is of a standard customarily required of students in engineering schools granting degrees. Generally no college credit is given for Engineering Defense Training work.

### Management Training

The kinds of management training which can be given under this program fall into three principal classes, namely:

1. Training of supervisors.
2. Training of functional management specialists such as men responsible for production planning, motion study, time study, safety engineers, etc., and
3. Training of executives and sub-executives to assume greater responsibility in the growing defense program.

### Training of Supervisors

The lack of competent supervisors in many

of the defense industries is serious both from the point of view of securing adequate production of the right quality when required but also from the point of view of securing satisfactory labor relations.

Many managements have recognized this serious need and have availed themselves of the opportunity of giving courses in production supervision to their supervisors and potential supervisors as a part of the Engineering Defense Training Program. Thousands of supervisors have been given such courses and it is very likely that this type course will be given much more extensively under the expanded program.

#### **Training of Functional Specialists**

There are three groups of functional management specialists for which the need is great in defense industries. They are as follows:

- (1) Motion study and time study men.
- (2) Men trained in the proper control of production, and
- (3) Safety men.

The need for additional persons to perform these functions and for the up-grading of those now engaged in these types of work has been clearly recognized since the beginning of the defense program. With the increased accident frequency and severity rates which are characteristic of rapidly expanding defense industries, special emphasis has recently been placed upon the training of safety engineers and greater progress has been made in the formal training of this group since January, 1941, than had been made since the beginning of the safety movement.

#### **Training Executives and Sub-Executives**

With the expanding defense program, many technical men are being placed in executive and sub-executive work for which they have had no special training. The need of this group is largely for training in the

fundamentals of management. For example, one such group organized under the Engineering Defense Training program was composed almost entirely of Ph.D.'s in Chemistry who had found themselves in executive positions rather than in technical research work as a result of the very rapid expansion of the company for which they worked. Many engineers also discover that as they advance with their companies they are drawn away from technical engineering work and given greater management responsibilities. In such cases effective formal management training proves most valuable.

#### **Conclusions**

Engineering Defense Training courses are being given with the full knowledge that engineers and managers cannot be developed in six months. However, it is possible to make a substantial contribution toward the up-grading of engineers and managers in that space of time. It is also possible to train persons with the proper educational background and experience in some specific aspect of engineering or management and thus relieve the engineers and managers of a company of some of the work formerly performed by them. With the tremendous expansion of the defense industries this will be required to an increasing degree.

It is interesting to speculate upon the effect which the training of over 100,000 persons per year in engineering and management subjects will have upon the economic life of the country. Certainly the impact of this training will be felt after the emergency in terms of an improved economic and competitive position of American industry. The fact that a substantial group of citizens is willing to take such a large number of hours per week from their leisure time to assist the defense program and to improve themselves also speaks well for the initiative and energy of our workers.

## REPORT OF SURVEY

### A Survey of Projected Personnel Needs

THE Association recently conducted a "high spot" survey of projected personnel needs in which over two hundred leading representatives of business, industry and the professions were invited to participate. The purpose of this study was to secure information which might be of assistance to faculty advisors in secondary schools and colleges, in guiding students into the selection of courses of study which would ultimately qualify them for available positions in these fields.

The organizations participating in the study were asked to predict the approximate number of positions which will be available to high school and college students who will be graduating during the next two years and to indicate the basic educational requirements and, wherever involved, any special courses pre-requisite to qualification for employment.

To the extent that they found it possible to do so, those replying to the inquiry stated their estimated employment needs as of the February and June commencements in the years 1942 to 1944 inclusive, and in many cases supplied further additional information with respect to their fields of activity which, wherever pertinent to the study, has been included in the summaries appearing below.

### Banking and Financial

Institutions replying were representative both as to size and geographical distribution and uniformly indicated broad opportunities for graduates who will be available in February, 1942. Estimated opportunities for graduates of succeeding classes were larger by as much as 50 per cent, June requirements, in all cases, exceeding those for February. In practically all cases positions were at the "beginner" level, high school graduates being preferred over college de-

gree holders by approximately 5 to 1. In the case of high school training, there appeared to be a slight preference in favor of the commercial courses over the academic. For college graduates, courses in business administration were emphasized, with accounting, banking, commercial credits, economics and insurance listed as pre-requisite subjects. However, distinct interest was evidenced by some in the long-range development of managerial material, with emphasis upon character, personality and adaptability rather than upon specific courses studied. Of particular interest, also, is the recent trend toward the training of women employees for positions of responsibility, formerly held by men.

### Engineering

Because of uncertainty as to the duration of prevailing emergency conditions in all branches of the engineering profession, it was impossible to secure supportable predictions as to the need for trained engineers beyond the immediate present, which is, of course, characterized by a definite shortage of available talent. While it appears certain that young engineers graduating with the February and June, 1942, classes will be readily absorbed, whatever their field of specialization may be, the recent emphasis upon the need for trained engineers and the increased facilities, both governmental and private, for providing such training are likely to cause the supply to exceed the demand, in the not too distant future.

### Insurance—Life and General

Replies received give a very interesting picture of the employment opportunities in this field. There is a decided preference for women to fill "beginner" jobs in the Home Offices, the demand being almost entirely for high school graduates of either the academic or commercial courses. Typical jobs



are those for typists, file clerks, stenographers, statistical clerks and key punch operators; typing is generally required, whereas shorthand is a requisite in about 50 per cent of the positions listed. In a few instances male high school graduates are employed in the above-mentioned jobs, but the best opportunities for advancement in the insurance field are for college men. The latter are principally required in the following departments: actuarial—requiring four years of mathematics, courses in actuarial science and ranking in the upper third of the class; agency—requiring accounting and insurance, the call being given to individuals qualified to take examinations for the degree of Chartered Life Underwriter; investment—requiring a major in finance or agronomy; general office—requiring courses in insurance, investments, mathematics and accounting as well as outstanding qualities of leadership, since these candidates are counted upon as potential supervisors. There seems to be little demand in Insurance Home Offices for college women, but the positions available for them require courses in mathematics and insurance, as well as a knowledge of typing and shorthand.

#### Manufacturing

The personnel requirements in the manufacturing field seem to be divided into two general groups. First, there is the demand for high school graduates to serve as machinists, and most companies have their own shop schools which offer apprentice courses or training periods, which, in some cases, extend over four years. A fairly good background in mathematics is desirable in the trainees. It is interesting to note that in the last ten months one company has trained nine hundred men in shop schools. Secondly, there is a definite demand for graduates of business administration courses and for college trained mechanical and chemical

engineers, chemists and physicists. For the latter groups, the companies offer engineering apprenticeships and orientation courses to graduates of technical colleges, to the end that they may receive the training necessary to qualify them for positions in the various departments within the company. In view of present conditions, it seems likely that this field will continue to assimilate a large number of qualified high school and college graduates.

#### Miscellaneous

In view of the small number of replies received from certain of the employment fields studied, it is difficult to present a reliable cross-section of their particular needs. However, there seem to be certain general trends, as for example, the preference for June over February graduates and for high school graduates of the commercial courses to fill clerical and stenographic jobs. It is apparent that a need exists for college graduates with specialized training to fill the following positions: young Law School graduates to serve as law clerks; graduates of the Liberal Arts or College Commerce courses to serve as junior staff accountants; college men with a major in chemistry or pharmacy to fill positions in pharmaceutical firms. The major employment problem faced by the publishing concerns is to secure experienced printers, proofreaders, pressmen and bookbinders, and this training can only be obtained through apprenticeship employment. At least a high school education is required of those selected for apprenticeship training within the individual plants, but further education is of little value unless of a technical nature such as that secured in printing trade schools.

#### Public Utilities and Transportation

The year 1942 offers fairly broad opportunities to students graduating from the

schools and colleges, with a probable decrease in 1943 indicated. In addition to a large number of personnel requirements in the trades and labor classifications, where graduation from high school is not required, there will be a number of positions for high school graduates in clerical, custodial and sub-professional work, in which a knowledge of mathematics and the physical sciences is desirable. According to estimates submitted it appears that about five times as many high school as college graduates will be needed. However, there is also a demand for college graduates, particularly Civil Engineers or those having majored in some other field of engineering, chemistry, accounting or forestry. Most of the jobs avail-

able to women are for high school graduates and cover switchboard operating, messenger and junior clerical work.

### Concluding Comments

In closing we should like to take this opportunity to express our sincere appreciation to all those companies which participated in this survey. One of our major objectives is the furtherance of the occupational and vocational adjustment of youth in all walks of life, and we feel that any study of occupational trends should prove helpful to that end. This is only the forerunner of other studies which we will endeavor to conduct on a more detailed and scientific basis.

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## THE BOOK REVIEW

**"How to Select and Direct the Office Staff,"** by Edward A. Richards and Edward B. Rubin. Harper and Brothers, 1941. \$2.50.

Every organization, whether public or commercial, which expects its recently promoted office manager to acquire overnight all the knowledge of a trained personnel manager, should make sure that on its office shelves is a copy of "How to Select and Direct the Office Staff," recently published by Harper and Brothers. This book very successfully accomplishes its purpose as expressed in its preface: "What the authors have tried to do is to present reasonable, workable plans for so ordering the human relationships within an organization that the work will get done, leaving all parties relatively happy and well pleased with themselves."

Covered in detail are the many problems of hiring and maintaining a successful organization. The reader will find here the steps to take and the order in which they should be taken. Job classification is of course the first essential—an analysis of just what detail each individual worker must be capable of handling. Next, helpful information is given as to possible sources for different kinds of applicants. Detailed instructions are included as to the particular information that an application blank and a personal interview should elicit, and indicating the degree

of education and experience which should be expected for the various types of job. Especially useful should be the information about tests that may be used.

The latter half of the book covers the actual handling of the office staff, organization of routine, methods of training new workers, payday arrangements, promotions and discharges, and general personnel policies. The office manager who follows the ideas of the authors in these fields need not fear lack of cooperation or brooding resentment in the people he supervises, for in all cases the recommendations are for intelligent handling and just treatment.

The principles on which the authors' ideas are based are sound, and applicable to all types of organization, small or large. However, this book, according to the authors' own statement, is written for the small office and to cover office activities only. The amount of material might have been more effectively presented in shorter form. For example, the job classification plan suggested seems more elaborate than would be warranted in a small office. Only in a large organization can there be a sharp divisional line between jobs. In the smaller groups there is apt to be a good deal of overlapping of responsibilities. The necessity for job classification is still there, but its importance and method of handling is satisfactorily covered in the first three pages of a fourteen-page chapter. Again, there is a good

deal of repetition of material. Similar instructions are repeated on the sources, interviewing and testing of different types of workers. In the writer's opinion it would have been preferable to centralize these instructions in one chapter and follow with the differentiation necessary in the actual jobs themselves.

However, any confusion which might result from this repetition of material is very ably remedied by a final chapter in the form of questions, which outline the whole book. This idea is unusually good. It makes it possible for the harassed office manager to find his own question expressed for him in words, and to refer quickly to the answer to his problem. Finally, also, a very complete index, the "sine qua non" of reference books, is included.

The material offered covers very thoroughly the subject of the book and the style is so simple and direct that the result is an excellent handbook of frequent reference for the busy office manager.

Reviewed by EDITH N. COIT, *Personnel Manager, Northeast Phila. Retail Store, Sears, Roebuck & Co.*

**Choose and Use Your College, Guy E. Snavelly, Harper and Brothers, New York, 1941, pp. 166-ix, \$2.00.**

With an ever-increasing number of pupils graduating each year from high schools has come an increasing awareness of the need for assisting the graduate—also his parents—in making a wise selection of the college in which he is to pursue his future education. This is evidenced by the recent publication of three books dealing with the problem.<sup>1</sup>

The author of *Choose and Use Your College*, the third of these to come from the press, is Guy E. Snavelly, now Executive Director of the Association of American Colleges. As stated in the Preface, the book comes in response to such questions as, "What type of college should I attend? What help can I obtain to supplement my meager finances in going to college? What subjects should I study? For what vocation should I prepare?"—questions which come nearly every day to the Director's Office.

The author has chosen to answer these questions without presenting specific information about individual colleges. In this respect the book differs from the other two listed below. While the Appendix contains the names of 575 colleges on the approved lists of the regional

accrediting associations, with those which are approved by the Association of American Universities and those which have chapters of Phi Beta Kappa indicated, there are no data relative to the tuition, curricula, scholarships, etc., of the colleges included. In other words, this does not purport to be a handbook on colleges and universities.

Instead, Dr. Snavelly discusses American Colleges in general, their evolution, types, ideals and their contributions to national life and individual development. Problems involved in the selection of a college are raised and some practical suggestions are given as to how an institution should be evaluated. However, one leaves this section of the book with the feeling that the treatment is too sketchy. No doubt the points which the author emphasizes in the selection of a college are valid, yet there is some question as to how the prospective college student can obtain much of the information that is deemed desirable. While the several approved lists offer some guidance as to what colleges meet recognized standards, it is not an easy matter to determine whether a college lives up to the ideals as stated in the catalogue or whether the alumni have been successful in their after-college careers.

This problem of obtaining basic, qualitative information about colleges is one that faces all guidance people in our schools today. In some areas Parent-Teacher Associations are cooperating with schools in obtaining much valuable data from parents who are college alumni. These alumni have agreed to confer with interested pupils in the discussion of the merits of their respective colleges. The value of this book might have been enhanced had the author suggested how the home and school could further cooperate in providing more adequate and vital college counselling.

In view of the fact that this book makes no attempt to deal with specific data about individual colleges, it is a serious omission that no bibliography of handbooks or other references on the selection of a college are included. Pupils are markedly interested in learning about the offerings, cost and scholarships of particular colleges and while this book serves as a valuable introduction to the problems of college choice, it could better serve its purpose had it directed the prospective college student to further reading in a number of excellent books which contain many of the concrete facts desired by them.

The chapter "How College," used in conjunction with the list of College Loan Funds found in the appendix, is one of the most helpful sections of the book. The matter of scholarships and college loans is adequately presented with helpful suggestions as to how the student can obtain financial assistance in completing his ed-

<sup>1</sup> Lovejoy, Clarence Earle, *So You're Going to College*, 1940, 383 pp., Simon and Shuster.

Tunis, John Robert, *Choosing a College*, 1940, 249 pp., Harcourt.

uation. Of particular note is the discussion of a modern tendency on the part of students and parents to "shop around" to see which college will offer the best scholastic inducements." It is the opinion of the author that such practices tend to develop some students into "highly trained grafters." Dr. Snavely is likewise critical of the student with considerable financial means who pleads for scholarship concessions. He counsels college administrators to work out together a plan by which this unhealthy condition can be remedied.

The latter part of the book deals with the "use" of the college by the student. In discussing "What to Study," Dr. Snavely aligns himself with those of the liberal arts tradition. The undergraduate is advised against too highly specialized a course, particularly in preparing for the professions. Thus the first two years in college should be devoted to fundamental subjects. A major and a minor should be chosen from the three general fields—Humanities, Physical Sciences, Social Sciences—in the last two years.

It is somewhat difficult to determine where Dr. Snavely stands on recent curricular developments in the college. On the one hand, he states that the college will do well to cooperate with the high schools in the present study of the secondary school curriculum, which study, he goes on to say, "might have a somewhat revolutionary affect on the college curriculum." On the other hand, he accepts the disciplinary value of mathematics and the classics, and he is a firm believer that "translation into concise English of the old Latin and Greek masterpieces is the best possible method of developing facility of expression."

The last few chapters may be considered as a series of brief essays on such topics as "Careers," "Friendship," "Health" and "College Life." Helpful advice is freely given, if occasionally in a somewhat platitudinous form.

*Choose and Use Your College* is written from the standpoint of the college educator; Dr. Snavely sees the problem in the light of his experiences with college students. In general terms, he has presented a clear picture of what the prospective college student faces in continuing his education on a higher level. The question is whether he has emphasized the points at which he can best make contact with high school students or their parents. The book is too brief to cover the topics embraced in an exhaustive manner. However, for those who for the first time are faced with the problem of going on to college, it can serve well as a preview to further investigation.

HARRY E. OPPENLANDER,  
Chairman, Faculty Committee on Guidance,  
Swarthmore High School.

**Put Yourself to the Test, Edward C. Webster, Harper and Brothers, New York, 1941, 129 pp., \$2.00.**

"This book is a prescription" intended as an aid to vocational self-guidance rather than a panacea for the problems therein. "The wise reader will approach it as he would a strange bottle of medicine. He will read the label before sampling the contents. Then he will take the medicine as prescribed." The label in this case is an introductory chapter discussing briefly the relation of self-vocational guidance to vocational guidance in general, describing the role played by such a book as this in self-guidance, and giving general directions to be followed in working the rest of the volume. The medicine consists of tests and questionnaires contained in ensuing chapters which the reader is to administer to himself with the aid of a friend to act as timekeeper, plus two chapters on choosing and entering one's vocational field. Interpretative discussion accompanies each of the tests. Guidance counsellors and others may be expected to object to the medical prescription analogy inasmuch as this procedure would seem more closely to resemble dosage by patent medicine, or perhaps by the amateur pharmacist who himself diagnoses his ills and concocts the drugs intended to remedy them.

The introductory treatment states some of the limitations of self-guidance of this sort and stresses particularly that it should not be regarded as a substitute for guidance with the aid of a qualified counsellor when the latter can be found and the fees are not too high. These limitations seem to be very much minimized, however, in the discussion that follows. Inadequacy of the contained pencil and paper battery of tests in measuring the whole personality, for instance, is met with the statement, "You may supplement the tests given with others which may be available." Also, "What can I do? What are my abilities? What qualities can I capitalize upon in my search for work?" The reader should be able to answer these questions when he closes this book," seems to reflect little lack of faith in complete adequacy of the procedure. It is admitted, however, that while the reader should be able to build his own framework of personal characteristics it "may not be as accurate in the finer details as the one provided by a psychologist but it does present the same general outline."

The first characteristic to be tested is intelligence as measured by the Army Alpha Test. There are given complete directions, a table of norms and an occupational classification in terms of score ranges. Discussion and interpretation of individual scores is reasonably good, but there



would be welcome and is absent such a statement as, "If your score is below at least the seventy-fifth percentile you had better go no further in attempting to follow this self-analysis procedure."

Clerical ability is gauged by performance on a combined name and number checking test of eight minutes' duration. Very meagre data are given to establish the predictive value of this and the other tests and measures presented, though such essential data might have been presented conveniently in an index. The attempt is made to predict mechanical aptitude on the basis of a questionnaire on past mechanical activities, apparently based solely on the highly dubious "as-

sumption that the young man who never learned to use his hand lacks this aptitude." There are questionnaires to measure personality traits, vocational interests, educational and other abilities. (All of them apparently unvalidated or loosely validated.)

What hope can there be that effective self-guidance will emerge from self-administration and interpretation of an incomplete battery of largely unvalidated tests by an "unwary novice" (to use the author's words) aided by "a friend"?

KINSLEY R. SMITH,  
*Assistant Professor of Psychology,  
The Pennsylvania State College.*

## BIOGRAPHICAL NOTES

A foreword from the new President of the Association, GORDON A. HARDWICK, appears on page 5. Mr. Hardwick, a native of Iowa, graduated from Fort Dodge High School, Iowa, and received his B.S. degree in Economics from the University of Pennsylvania in 1916. He was employed by the General Chemical Company until May, 1917, when he enlisted in the U. S. Navy, only to be commissioned Ensign two months later, and in July, 1918, he was promoted to Lieutenant, Junior Grade. Upon returning to civil life in 1919, he became associated with Tubize Artificial Silk Company. Mr. Hardwick was appointed Comptroller of Penn Mutual Life Insurance Company in January, 1931, and elected Vice-President and Comptroller in January, 1934, which position he still holds. He is a member of the First Troop, Philadelphia City Cavalry, and served in the Pennsylvania National Guard from 1921 to 1936, retiring with the rank of Captain of Cavalry. Among the many outside activities which occupy his time are the following: President of the Board of Managers of the Graduate Hospital of the University of Pennsylvania; President, General Alumni Society, University of Pennsylvania; Chairman, Philadelphia Committee of the Pennsylvania Economy League; Member, Philadelphia County Board of Public Assistance; Director of Girard Fire Insurance Company. He also is a past President of the Life Office Management Association.

DR. WILLIAM MATHER LEWIS, the author of "Vocational Implications of Selective Service," which appears on page 12, has been director of Selective Service in Pennsylvania since September, 1940, and President of Lafayette College since 1927. He was formerly Mayor of Lake Forest, Illinois, and Director of Savings Division of the U. S. Treasury Department. In 1934, he

served as President of the Association of American Colleges. He is a Phi Beta Kappa, and an officer in the French Legion of Honor. Dr. Lewis is the author of "From a College Platform."

The article on the "Red Cross Nurses' Training Camp at Bryn Mawr," appearing on page 24, was submitted by MRS. THOMAS RAEBURN WHITE, who is herself a graduate of Bryn Mawr College. In 1918, she attended the Vassar Training Camp, and then entered the Pennsylvania Hospital where she served until after the Armistice. During most of the following year she worked in France with the American Committee for Devastated France. Mrs. White received her M.A. degree from Columbia in 1921 and was preparing for educational work, when marriage interrupted her career activities.

At the present time DR. S. S. HUEBNER, whose article, "The Need for Collegiate Instruction in Insurance," appears on page 19, is professor of Insurance and Commerce at the University of Pennsylvania, President of the American College of Life Underwriters, and one of four members of the War Department Advisory Committee on Insurance. He has served the Federal Government on a number of important investigations, and during his entire career, he has been essentially a pioneer in the field of insurance teaching, in the preparation of texts and other publications, and in the initiation of professional movements. He is the author of numerous books on insurance, including "Property Insurance," "Life Insurance," "Marine Insurance," "Economics of Life Insurance," etc.

The two contributors to the dual article "The Engineering, Science and Management Defense



Program," which appears on page 40, are Dr. A. M. Sones and Dr. Victor S. Karabasz. DR. SONES, who presents the engineering and science phases is a professor at Drexel Institute and Assistant to the Regional Adviser for U. S. Engineering Defense Training, Region No. 6. He is a graduate of Cornell University and received his M.A. from Northwestern University and his Ph.D. from the University of Iowa. DR. KARABASZ, who treats the management phase, secured his B.S., M.A., and his Ph.D. degrees from the University of Pennsylvania and is now Associate Professor of Industry at the Wharton School of Finance and Commerce. He is a member of the Third Regional Labor Supply Committee of the Office of Production Management, and also a member and officer of the Society for the Advancement of Management. Dr. Karabasz is the author of several books on management and has served as Consultant to various State and Federal agencies.

"What the Association Can Mean to High Schools in the Country," appearing on page 25, was written by FRANK R. MOREY, a native of York, Pennsylvania, who is at present Supervising Principal of Schools at Swarthmore, Pa. He secured his B.S. degree from Penn State, his M.A. from Teachers College, Columbia University, and has taken graduate work in Education at the University of Pennsylvania. He is a past President of the Southeastern Convention District, P. S. E. A., and of the Delaware County Teachers Association. Mr. Morey was formerly a member of the staff of the Department of Public Instruction at Harrisburg.

The article "Opportunities for Women in Business," which appears on page 29, was written by BEATRICE JONES, who has herself achieved notable success. Starting as a stenographer in Oklahoma, she came to New York City in 1920 and took a job with the Standard Oil Company of New Jersey as stenographic supervisor. In less than a year she was made Personnel Assistant in charge of women, boys and non-technical men and served in this capacity until 1928. In that year she entered the employ of the Equitable Life Insurance Society and won her C.L.U. in 1934. She served as Director of the American Society of the C.L.U. for two years and also as a director of the New York Chapter. She was recently singularly honored by being elected the first woman president of the Life Underwriters Association of the City of New York, which is now in its fifty-sixth year.

The article "Need for Professional Personnel" on page 35, was written by FRANCIS J. BROWN.

Dr. Brown, who received his A.B. from the University of Iowa, his M.A. from Columbia University and his Ph.D. from New York University, is at present Consultant for the American Council on Education and Professor of Education at the New York University (on leave). In addition he is Executive Secretary of both the Subcommittee on Military Affairs of the National Committee on Education and Defense and the Subcommittee on Welfare and Recreation. Dr. Brown is the author of "Sociology of Childhood," co-editor and co-author of "Our Racial and National Minorities," and editor and co-author of "Contemporary World Politics."

AUBREY WILLIAMS, a native of Alabama, is the author of "Opportunities for Youth," which appears on page 50. At the age of 20 he entered Maryville College, and in 1915 matriculated at the University of Cincinnati. Mr. Williams went to France in 1917, and following the war, secured his degree at the University of Bordeaux. After his return to this country, he served as Director of Recreation for Cincinnati and for ten years as Director of the Wisconsin Conference of Social Work. During his service with the American Public Welfare Association he was called to organize the Mississippi Relief Administration, and later the Texas Relief Administration. In 1933 he was appointed field representative of the Federal Emergency Relief Administration for the Southwest, and within a few months was brought to Washington as Assistant Administrator; in 1936 he was named Deputy Administrator. When the President, by Executive Order, established the NYA, Mr. Williams was appointed Executive Director, under Mr. Hopkins, and in December, 1938, he was named full-time Administrator.

Today, at 42, ROBERT MAYNARD HUTCHINS, a contributor to the symposium on "Defense Activities" appearing on page 45, is regarded as one of the most influential figures on the American educational scene. Of an old New England family, he was born in Brooklyn, N. Y., and attended Oberlin Academy and Oberlin College. He left college in 1917 to join the U. S. ambulance service, seeing action with the Italian Army in 1918-1919 and winning the Croce di Guerra. After the war he entered Yale University, receiving his A.B. and LL.B. degrees, and became Dean of Yale's Law School at the age of 28. While there he was instrumental in organizing the Institute of Human Relations. In 1929 Mr. Hutchins was elected the fifth president of the University of Chicago, which office he holds at the present time. At Chicago he put into effect the "Chicago Plan" which has had a most profound influence on the nation's educational program.

## NEWS ITEMS

### Armstrong Cork Company

Forty-four college and university graduates, representing 31 educational institutions in 15 different states, recently reported to begin an extensive introductory course, this class marking the twenty-second year of the Company's Student Training Program. Early in the winter the general managers of the different divisions and the heads of the staff departments estimate the number of men they will need, indicating their requirements in terms of possible expansion over a period of five years. All preliminary contact work among applicants is consolidated under J. J. Evans, Jr., director of personnel, and G. W. Kittridge, assistant director. They go into the field each year to interview several thousand prospects preselected by the various college and university placement units. Great care is given to the final selection of candidates, and this long-range systematic training plan, based on rigid standards of selecting and preparing men for careers, has minimized the Company's problem of turnover because of the careful preliminary attention given each individual case. There is also high probability that the members of the Student Training Class will reach the top.

### New York University

In accordance with its policy of exploring the vocational values of various fields within the traditional liberal arts curriculum, New York University is inaugurating the following three new curricula this Fall: a four-year motion picture course designed to train young men and women in writing, production and direction; a four-year X-ray technology program to train men and women for work in X-ray laboratories; and a vocational major in actuarial mathematics.

### Cleveland College

Of interest is the establishment of a Personnel Research Institute, which will serve firms, institutions and individuals in the solution of personnel and vocational guidance problems. Among its purposes will be: job analysis, job rating for purpose of wage determination, provision of an industrial service for dealing with problem employees, provision of a service for testing and provision of a guidance service including complete vocational planning for individuals in high schools or colleges. Its direction will be in the hands of Dr. J. L. Otis and Dr. Oliver H. Ohmann.

### Pittsburgh Coal Company

Each summer from twenty-five to thirty-five college undergraduates are placed at work in and about the mines. They are potential mining engineers and in this way their studies are supplemented by practical experience. An effort

is also made to secure ten or fifteen mining engineers each year to enter a two-year training course with the company. This course includes work in all phases of mining operation and extends to all departments in the company. In order to offset the present shortage of semi-skilled and unskilled laborers within the mine, the Company is cooperating directly with the state employment agencies and supplementing its normal working force with their men.

### University of Wyoming

Sixty men and women with professional interests in inter-American relations and affairs have just completed a nine weeks summer institute for intensive training in Portuguese and Spanish at the University of Wyoming. Emphasis was placed upon language as a medium for research and communication with Latin-American colleagues, and the equivalent of two years of college grammar and language work was accomplished in the nine weeks' session.

### Ohio University

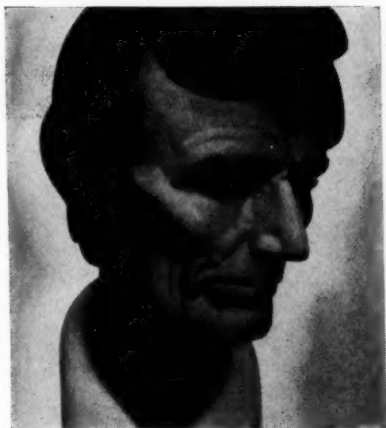
In September a new plan for university defense training is being instituted, whereby students will be trained for important defense positions, in two-year courses, by concentrating on technical fields of study. The plan will be under the direction of Dr. E. A. Hansen, and two-year programs will be offered in production control, accounting, aerial photography, camouflage techniques, chemistry, physics, meteorology and radio and electronics.

### Pennsylvania School for the Deaf

In the Fall this School plans to expand its program along cooperative lines, whereby half a dozen Philadelphia employers will undertake the training of two deaf workers each. The plan is to have the two workers alternate in a single job, so that they are free to spend half their time in school, working on studies specifically related to their work in the factory or industry. This is an experimental extension of the kind of cooperative program which has proved so successful at Drexel Institute, Antioch College and elsewhere.

### Bucknell University

A very encouraging report was received from the Placement Bureau of this institution, indicating that there was "no field of least opportunity" this year, since there were more positions reported than could be filled. Graduates of the engineering department were the most sought after group, and several of the A.B. and Commerce and Finance students have enrolled in the engineering courses offered in connection with national defense.



## A CAREER IN LIFE INSURANCE

**I**N THE selection of tomorrow's Life Insurance field men, there are two current trends: First, to hire fewer and better men. Second, to provide more and more intelligent help for those hired. For the college man with a sales career in mind, this situation is ideal.

The Lincoln National Life will send, without obligation, further information on Life Underwriting as a life work.



## THE LINCOLN NATIONAL LIFE INSURANCE COMPANY

*More than a Billion Dollars of Insurance in Force*  
FORT WAYNE INDIANA